

KNOWLEDGE ORGANISER BOOKLET

YEAR 7 – CYCLE 2

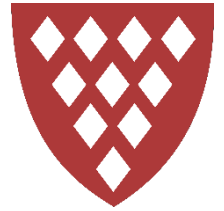
2025-2026



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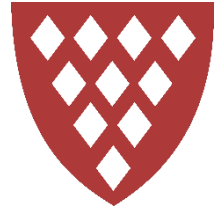
Tutor Group:

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Instructions for Use



For all of your subjects, there are certain **facts** that you **need** to know in order for you to best understand the content you study in lessons.

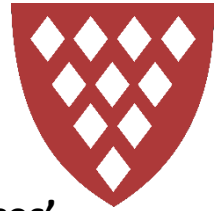
In this booklet are **Knowledge Organisers** for each subject which contain the core concepts that you have to know to be successful in your lessons.

The **first 15 minutes** of Home Learning is the same in all subjects (apart from Maths) and should be completed in your single **Home Learning exercise book**:

-  **Look:** read a specific section of the *Knowledge Organiser*.
-  **Cover:** cover it over or put it to one side;
-  **Write:** from memory, write out as much of the information as you can remember for that section;
-  **Check:** check back with the *Knowledge Organiser*. Anything missing or incorrect, add in purple pen.
-  **Review:** information you didn't recall the first time you may wish to check in a different format, such as repeating the process or creating revision cards.

The next lesson, your teacher will check that you have completed this process and you will be quizzed in your subject lesson to see what you can recall.

Instructions for Use : Example



Show My Homework for Geography says: 'Knowledge Organiser: How to Read Grid References'



1. **LOOK:** carefully read the section of the *Knowledge Organiser* which you are learning.



2. **COVER:** cover it over or put it to one side.



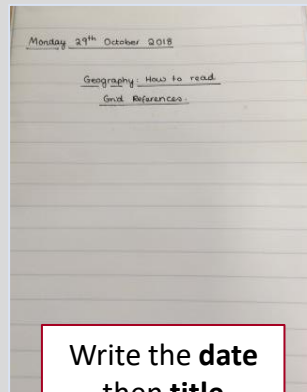
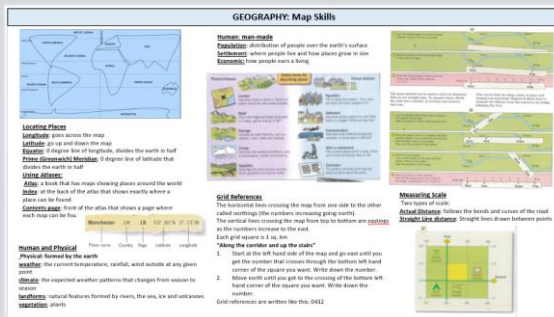
3. **WRITE:** write out as many details as you can from memory.



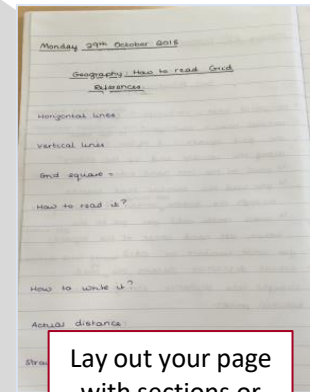
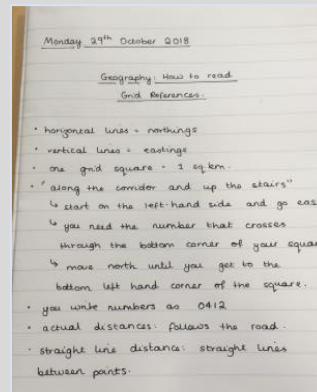
4. **CHECK:** check back over your answer with the *KO*. Anything which is missing or incorrect, add in in **purple pen**.



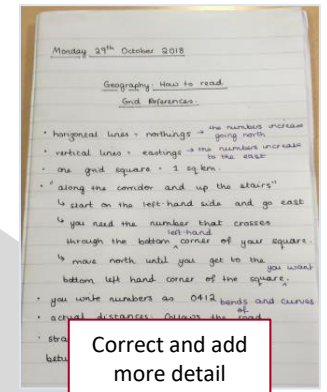
5. **REVIEW:** if you had significant gaps or parts you didn't understand, repeat the process from Step 1.



Write the **date**
then **title**
(**subject: focus**)



Lay out your page
with sections or
questions to help



Correct and add
more detail
using your
purple pen.

sparx is your Maths homelearning

You do not have a knowledge organiser for maths. This is because the best way to remember and understand mathematics is to do it. Write your Sparx password in the space below so you don't forget it.

Sparx username:

Sparx password:

How do I log on?

Go to www.sparxmaths.uk. Select **Kingsbridge Academy** and enter your username and password.

What do I have to do each week?

Complete all of your Compulsory Section Sparx homework and get it 100% correct. If within your hour of home learning time you should complete the target and optional sections which are designed to help you make better progress in Maths.

How long should it take?

Sparx will adjust your homework so it should take about 1 hour. If you find yourself taking longer than this you should make sure you are coming for help on the difficult bits.

When should I do it?

You should complete your Sparx homelearning in the 4 allocated 15 minute slots in your homelearning timetable

What if I get stuck or can't do it?

You can watch the videos, ask a friend or parent or ask a maths teacher (in person or by email).

Why do I get different questions to my friend?

Sparx creates a custom homework just for you – because you are an individual. We are really pleased that we are able to offer you personalised homework.

Why do I have to do 100%?





We care about you and believe that you deserve to do well in maths. Students who do all questions learn more and get better results.

Year 7 English – Gothic Writing

GAPS

- G** - Gothic narrative/descriptive writing
- A** - General audience
- P** - To entertain








Paragraphing using TiPToP

| | |
|---|---|
| Change paragraph when you change time . |  |
| Change paragraph when you change person or introduce a new person . |  |
| Change paragraph when you change topic . |  |
| Change paragraph when you change place . |  |
| Indent OR leave a line to mark a new paragraph. | |

Mind-Map/Planning ideas

- List everything you see
- What's in the foreground and background?
- What might you zoom in on?
- What would it be like at different times of day?
- What's moving? What's still?
- List sounds you might hear
- What is your journey through the place?
- What is the weather like?

Genre Conventions

| | |
|---|---|
| Supernatural - Things that don't follow the normal 'rules' of the world |  |
| Fear/tension - Scary, nightmarish, unfamiliar |  |
| Involves past - Set in or haunted by the past. |  |
| Trapped - E.g. lost in the woods; locked in a room |  |
| Spooky setting - E.g. old castles, isolated houses, woods |  |
| Gloomy - E.g. set at night, underground or in thick fog. |  |
| Mystery – What's happening can't be fully explained. |  |

Word Choices

Using the 'best' word you can makes good writing into great writing.

| | |
|--|--|
| E.G. 'The crumbling church rose into view'. | The verb ' rose ' makes it sound like the building is moving, almost as if it is alive. |
|--|--|

How can I judge if it's the 'right' word?

- The word adds specific information
- It suits the gothic genre
- It adds interest to the sentence
- It suits the tone of the description
- It shows sophistication and precision.

| Instead of... | Try... |
|---------------|---------------------------------------|
| Scared | Petrified, panic-stricken, hysterical |
| Dark | Shadowy, gloomy, dusky |
| Broken | Battered, ancient, ramshackle |
| Move | Writhe, slither, creep, prow, slink |

Light / Dark Imagery

Darkness and light have been used as symbols in literature for a very long time. Some common connotations of light and dark include

| LIGHT | DARK |
|---------------|-------------|
| Understanding | Fear |
| Hope | Hate |
| Purity | The unknown |
| Love | Death |
| Truth | Ignorance |

Light and dark imagery is very useful for creating atmosphere in gothic writing so remember to refer to your 'dark and light imagery word – bank'.

Building long sentences

Snowball sentences (subject-first sentence) can be used to describe things in vivid detail –

*The river **was** a thread of silver, **cutting** through the darkened landscape, **reflecting** the moon, **leading** the boat and me ever closer to the castle.*

Pass-the-parcel (subject-last sentences) can be used for impact and to create tension.

***Drawn** by the rich smell of evening meals, **made** confident by the sound of relaxed and defenceless voices, **anticipating** a grand feast of its own, **the wolf slipped** unnoticed into the village.*

Finite Verb **Non-Finite Verb** **Subject**

Year 7 English – Gothic Writing

| Key Vocabulary | Definition | Synonym | |
|----------------|--------------------|---|---------------|
| Verbs | Brood | Think deeply about something sad or worrying | Contemplate |
| | Grasp | To grab tightly or violently | Clasp |
| | Wince | Make an involuntary grimace due to pain or distress | Flinch |
| | Catapult | To move suddenly/at great speed. | Propel |
| | Evade | Escape or avoid | Elude |
| Nouns | Tumult | A loud, confused noise | Uproar |
| | Banshee | A female spirit whose howl signals an approaching death. | Phantom |
| | Desperation | A sense of hopelessness | Anxiety |
| | Anguish | Severe mental suffering | Fear |
| | Trepidation | A feeling of fear about something that may happen | Apprehension |
| Adjectives | Dense | Closely packed together | Compressed |
| | Grim | Unattractive or forbidding | Dismal |
| | Spectral | Ghost-like | Ghostly |
| | Grotesque | Very ugly | Repulsive |
| | Oppressive | Harsh and overwhelming | Overbearing |
| Adverbs | Impulsively | Without forethought; on impulse | Spontaneously |
| | Furtively | In a way that attempts to avoid notice | Secretively |
| | Intensely | To an extreme degree | Acutely |
| | Ominously | In a way that suggests that something bad is going to happen. | Menacingly |
| | Eerily | In a strange and frightening manner. | Creepily |

| Word Classes | |
|--------------|---|
| Verbs | actions (<i>run, conceal</i>) or states (<i>is, was, have</i>). |
| Nouns | names of things, people and places |
| Adjectives | describe nouns (<i>pale, gloomy, cold</i>) |
| Adverbs | tell you how actions are performed (<i>gradually</i>); modifies an adjective (<i>quite foggy, more concerned</i>) or another adverb (<i>it is almost always raining here</i>) |
| Prepositions | indicate locations (the hat <u>on</u> the table), directions (<i>look <u>to</u> your left</i>) and time (<i>be there <u>by</u> noon</i>) |
| Pronouns | used to substitute for nouns (e.g.. 'She' instead of 'Sarah') or refers to something mentioned elsewhere in the text ('the castle'...' <i>it</i> ') |

Noun phrases

Definition = a group of words built around a noun.

The **door** was strange.

The **old, slightly rotten door** was strange.

The **old, slightly rotten wooden door with a rusty black handle which he had never dared to touch** was strange.

BEWARE – Overusing or over-expanding noun phrases can be just as bad as not using any at all!

| Types of Adverbs/Adverbial |
|---|
| Adverbs of Manner : Describe HOW |
| Adverbs of Time : Describe WHEN |
| Adverbs of Place : Describe WHERE |
| Adverbs of Frequency : Describe HOW OFTEN |
| Adverbs of Degree : Describe HOW MUCH |

| Adverbials |
|---|
| Adverbials are a word or group of words that usually describe time, place or manner (just like an adverb). |
| He peered inside . |
| He peered inside the well . |
| He peered inside the deep, dark well . |
| He peered inside the deep, dark well that terrified him |
| All of the above are adverbials of place. |

Gothic Genre Word Bank



| Adjectives | | | Nouns | | | |
|--|---|--|---|---|--|--|
| <p>People</p> <p>Aghast Defenceless Exposed Fearful Gaunt Helpless Intimidating Looming Morose Pallid Suspicious Vulnerable</p> | <p>Places</p> <p>Claustrophobic Deserted Dismal Extinguished Ghostly Isolated Macabre Melancholy Obscured Ominous Secluded Shadowy</p> | <p>Misc.</p> <p>Alarming Ancient Antique Curious Dusty Locked Neglected Ornate Peculiar Shocking Shrouded Unusual</p> | <p>Feelings</p> <p>Anxiety Curiosity Despair Desperation Determination Fear Hatred Suspicion Terror Trepidation Unease Uncertainty</p> | <p>Places</p> <p>Alley Attic Castle Cellar Chamber Church Graveyard Staircase Street</p> | <p>Objects</p> <p>Candle Chest Chimney Ghost Grave Lock Raven Shadow Shroud Spectre</p> | <p>Weather</p> <p>Clouds Darkness Drizzle Fog Lightning Midnight Rain Storm Tempest Thunder</p> |
| Verbs | | | Adverbs | | | |
| <p>Movement</p> <p>Ascend Creep Descend Evade Hide Leap Lunge Peek Pursue Tiptoe Uncover</p> | <p>Sound</p> <p>Announce Cackle Creak Cry Gasp Howl Intone Murmur Shout Shriek Whisper</p> | <p>Movement</p> <p>Abruptly Cautiously Creepily Eerily Furtively Ominously Reverently Suddenly Surreptitiously Suspiciously Tentatively</p> | <p>Sound</p> <p>Authoritatively Continuously Creakily Endlessly Morosely Silently Soundlessly Wordlessly</p> | | | |

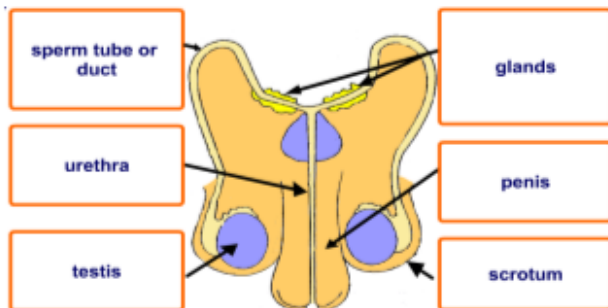


**Lesson 1
Puberty**

Adolescence is the time in your life when both physical and emotional changes occur
Puberty is the physical changes that occur during adolescence

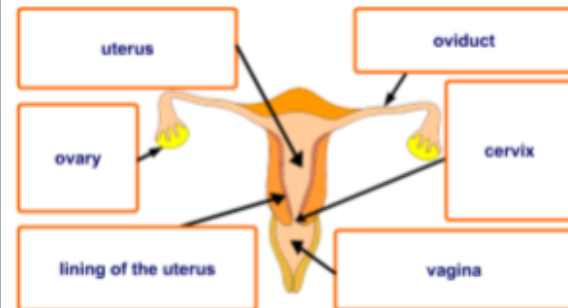


**Lesson 2
Male Reproductive System**

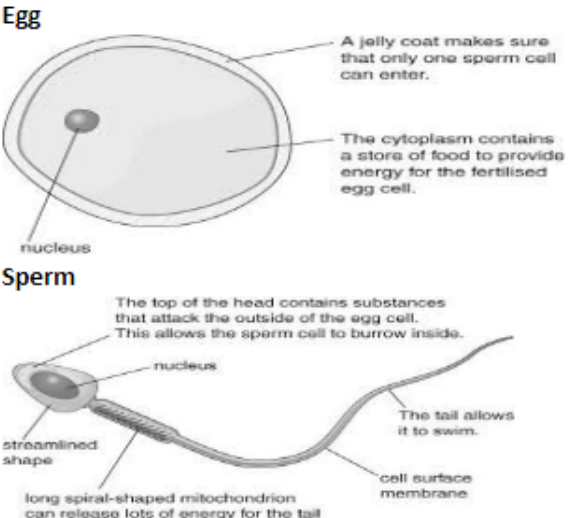
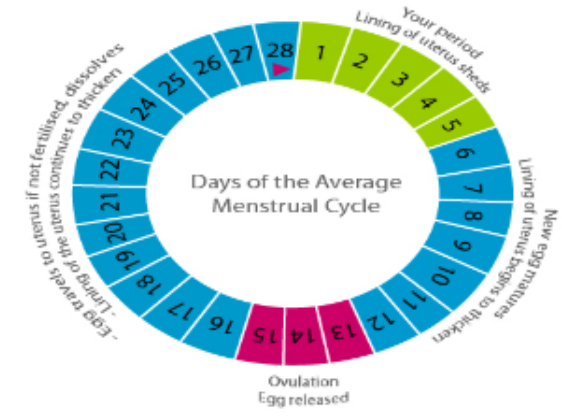


| Part | Function |
|------------|--|
| Testis | Produce sperm and male hormone testosterone |
| Scrotum | Sac of skin outside body that contains the testes |
| Glands | Produce fluids to nourish the sperm |
| Sperm duct | Tube that carries sperm and fluids (semen) from testes to urethra |
| Urethra | Tube inside the penis that can carry urine or semen. |
| Penis | Allows a man to pee or to place semen into vagina of women during sex. |

**Lesson 2
Female Reproductive System**

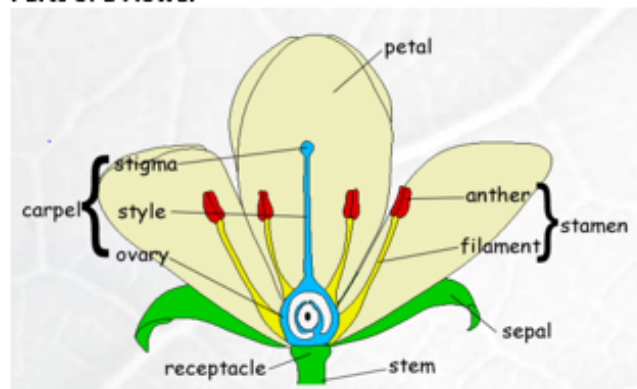


| Part | Function |
|---------|---|
| Ovaries | Produce eggs (ova) and female hormones oestrogen and progesterone |
| Oviduct | Tubes that connect ovary to uterus. Where sperm fertilises the egg. Contain cilia which waft to move the egg along. |
| Uterus | Muscular bag, where baby develops. Lining thickens every month. |
| Cervix | Ring of muscle at entrance of uterus |
| Vagina | Where sperm are placed during sex. |

| Lesson 3 Fertilization & Implantation | Lesson 4 Foetal Development | Lesson 5 The Menstrual Cycle |
|--|---|---|
| <p>Ovulation: Once a month one of the ovaries releases a mature egg (ovum) into the oviduct.</p> <p>Fertilisation: When a sperm and egg join together and the genes from the mother and father combine to form a new life. It occurs in the Oviduct. The sperm has to dissolve the membrane of the egg. The nucleus of the sperm then fuses with the nucleus of the egg.</p> <p>Implantation: The fertilised egg sinks into the soft lining of the uterus. It develops a placenta and develops into a foetus.</p>  <p>Egg</p> <ul style="list-style-type: none"> A jelly coat makes sure that only one sperm cell can enter. The cytoplasm contains a store of food to provide energy for the fertilised egg cell. nucleus <p>Sperm</p> <ul style="list-style-type: none"> The top of the head contains substances that attack the outside of the egg cell. This allows the sperm cell to burrow inside. nucleus streamlined shape long spiral-shaped mitochondrion can release lots of energy for the tail The tail allows it to swim. cell surface membrane | <p>Embryo – One week after fertilisation the ball of cells is called an embryo.</p> <p>Placenta - Attached to the uterus wall, takes oxygen and nutrients from the mother’s blood for the foetus and puts waste material into the mother blood from foetus</p> <p>Umbilical Cord- Connects developing baby to its placenta. Carries food, oxygen, and waste between the placenta and growing foetus</p> <p>Amniotic Fluid - Liquid surrounding the embryo protecting it inside a sac called the Amnion.</p> <p>Foetus - After 10 weeks an embryo has grown all of its organs, so it is called a foetus</p> <p>Other substances can also pass through the placenta.</p> <p>Drugs can affect the foetus - slowing the growth of the foetus, reducing the amount of oxygen and causing bleeding - which can be life threatening.</p> <p>Drinking alcohol or smoking while pregnant are also dangerous and can increase the risk of stillbirth, premature birth, and long-term health conditions.</p> | <p>The Menstrual Cycle starts at puberty in girls. Each cycle lasts about 28 days.</p> <p>The uterus lining thickens so that it is able to receive a fertilized egg.</p> <p>If an egg is fertilized, it can implant itself in the prepared uterus lining.</p> <p>If it is not fertilized, the lining of the uterus breaks down and is lost from the body.</p> <p>This is called menstruation or a period.</p>  <p>Days of the Average Menstrual Cycle</p> <ul style="list-style-type: none"> 1-5: Lining of uterus sheds 6-10: Lining of uterus begins to thicken 11-13: Ovulation Egg released 14-16: Lining of uterus begins to thicken 17-27: Egg travels to uterus if not fertilised, dissolves 28: Lining of uterus sheds |

Lesson 6 Flower structure and Pollination

Parts of a Flower



| | |
|----------|---|
| Petal | Coloured, flag-like structures which attract insects |
| Stamen | The male sex organ – made of the filament and the anther |
| Anther | Part of the male sex organ – makes pollen |
| Filament | A thin stalk that supports the anther |
| Carpel | The female sex organs – made of the stigma, the style and the ovary |
| Stigma | Collects pollen |
| Style | Connects the stigma to the ovary |
| Ovary | Found inside the ovary; contains the egg cell |

Pollination is the act of transferring pollen grains from the male anther of a flower to the female stigma. There are two types of pollination:

Self-pollination: The pollen grain lands on the same flower it originated from

Cross-pollination: The pollen grain lands on a different flower to the one it originated from

Bees, butterflies, beetles, moths and flies are all pollinators. Without them, food security would be threatened and there would be a worldwide shortage of fruit, especially apples, plums and pears.

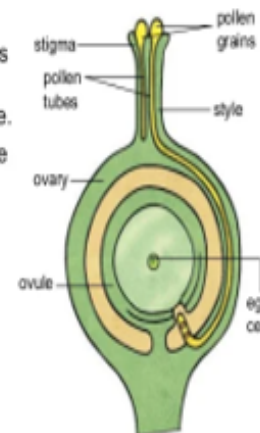
Many plant species could also decline or become extinct along with the organisms that directly or indirectly depend on them. Bees are facing many threats globally. These include habitat loss, climate change, toxic pesticides and disease.

Lesson 7 Fertilisation and Germination

Fertilisation is the joining of gametes.

Pollen is the male sex cell in a plant.

- When a pollen grain lands on the surface of a stigma, it produces a tube.
- The inside of the tip of the tube contains the **male cells** of the flower.
- These tubes grow down the style to reach the ovules in the ovary.
- Inside each ovule is an **egg cell**.



The nucleus from the male sex cell (pollen) then moves down the tube to join with a female sex cell (an ovule) in the ovary.

Fertilisation is when the two nuclei join

Lesson 8 Seeds and Fruit

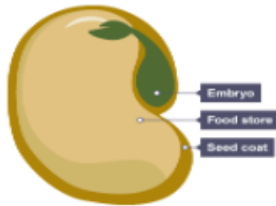
Most fruits have seeds, which make them capable of developing into new plants. The ovary develops into a fruit. Each fertilised ovule forms a seed.

A seed has three main parts:

An embryo: the young root and shoot that will become the adult plant

Food store: starch for the young plant to use until it is able to carry out photosynthesis

Seed coat: a tough protective outer covering



A cross-section of a seed

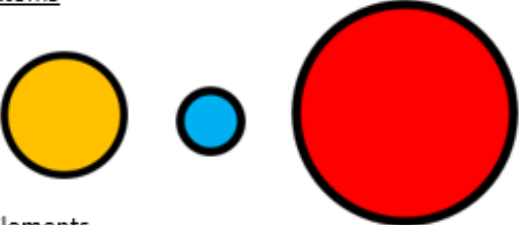
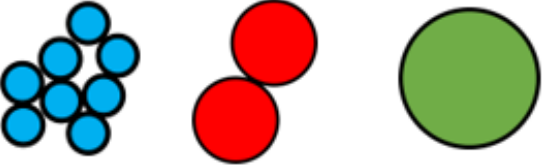



Seeds will often lie dormant until the conditions around it are just right for germination. Factors such as temperature, concentration of oxygen in the air and water will affect germination

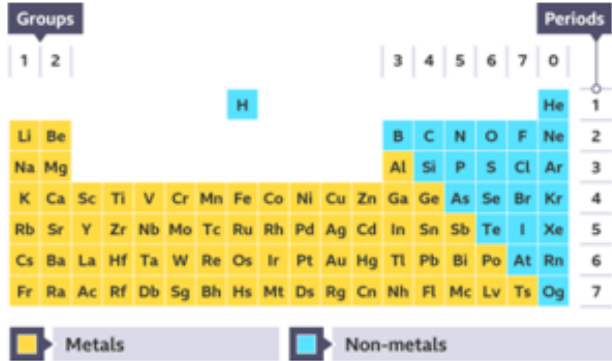
Lesson 9 Seed Dispersal

Seed dispersal is the transport of seeds from the plant to another area in order to grow. These are the main ways in which seeds can be dispersed: Animals, Explosion, Wind and Water



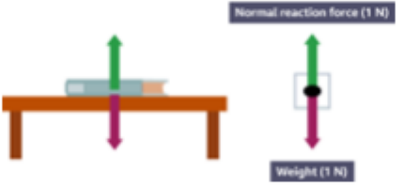
Seeds must be dispersed or spread away from each other and from their parent plant. This is to reduce competition between one another and increase their chances of survival

| Dispersal method | Description | Example |
|--------------------------|---|---------------------------------|
| Animal | Some plants use hooks on their fruits. These attach themselves to the fur of mammals or feathers of birds and get carried from one place to another. | Cocklebur, goose grass, burdock |
| Animal | Fleshy fruits are eaten by animals. The seeds are then dispersed after passing through the digestive system of animals that have eaten the fleshy fruits. | Tomato, raspberry, grape |
| Animal | Animals such as squirrels may store nuts to eat later and forget to go back to get them, giving them a chance to germinate. | Acorns |
| Explosion/self-propelled | Have a pod that bursts open when ripe, throwing the seeds away | Pea pod |
| Wind | Some plants have seeds that act as parachutes, which are carried away by the wind | Dandelions |
| Wind (spinning) | Some seeds are winged. They spin like helicopters as they fall from the tree, providing a longer time for dispersal by wind. | Maple fruits, sycamore |
| Water | Some plants grow near rivers, lakes, streams or oceans. Their fruits or seeds fall from the plant and are carried away by the water. | Coconut, silver birch, willow |

| Lesson 1 Atoms & Elements | Lesson 2 Compounds & Making Compounds | Lesson 3 Formula |
|---|--|---|
| <p>An atom is the smallest particle of an element.</p> <p>An element is a pure substance made from just one type of atom.</p> <p><u>Atoms</u></p>  <p><u>Elements</u></p>  <p><u>Element symbols</u></p> <p>Oxygen = O Sodium = Na Chlorine = Cl Carbon = C Sulfur = S Hydrogen = H Iron = Fe</p> | <p>A compound is a pure substance that is made from more than one element.</p> <p>In a compound, elements are chemically bonded together, which makes it very difficult to separate them.</p> <p>Compounds are not found on the periodic table. For example, water isn't on the periodic table because it is a compound, not an element.</p> <p>Elements in a compound have different properties to the pure elements on their own.</p> <p>Carbon Dioxide CO₂</p>  <p>Carbon Monoxide CO</p>  <p>Water H₂O</p>  | <p>sodium + chlorine → sodium <i>chloride</i></p> <p>copper + sulfur → copper <i>sulfide</i></p> <p>RULE: If two elements combine the product will end in '<i>ide</i>'</p> <p>copper + sulfur + oxygen → copper <i>sulfate</i></p> <p>RULE: If there are more than two elements and one is oxygen, the product will end in '<i>ate</i>'</p> <p>When a compound is made, the atoms of the elements bond together in a fixed ratio. This means that each compound can be represented by a chemical formula.</p> <p>For example, the formula of water is H₂O and the formula of carbon dioxide is CO₂.</p> <p>CO₂ 1 atom of carbon bonds to 2 atoms of oxygen</p> <p>CO 1 atom of carbon bonds to 1 atom of oxygen</p> <p>NaCl 1 atom of sodium bonds to 1 atom of chlorine</p> <p>CaCO₃ 1 atom of calcium bonds to 1 atom of carbon and 3 atoms of oxygen</p> |

| <p style="text-align: center;">Lessons 4 Periodic Table & Development</p> | <p style="text-align: center;">Lesson 5 Group 1</p> | <p style="text-align: center;">Lesson 6 Group 7</p> |
|--|---|---|
| <p>There are 118 chemical elements. They are listed on the periodic table in a specific order.</p>  <p>Elements in vertical columns are known as groups.</p> <p>Horizontal rows are called periods.</p> <p>Our modern Periodic Table was developed by a Russian scientist called Dimitri Mendeleev</p> | <p>Group 1 are very reactive metals.</p> <p>They are called the Alkali metals.</p> <p>lithium - Li sodium - Na potassium - K rubidium - Rb caesium - Cs francium - Fr</p> <p>Physical properties are the features of a substance which can be observed without changing the substance itself.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Melting point • Boiling point • Electrical conductivity <p>Going down the group melting and boiling point of the Alkali Metals decreases.</p> <p>Chemical properties are the features of the way a substance reacts with other substances.</p> <p>Elements in the same group have similar chemical properties.</p> <p>Going down the group the Alkali Metals become more reactive.</p> | <p>Group 7 are reactive non-metals.</p> <p>They are called the Halogens.</p> <p>fluorine - F chlorine - Cl bromine - Br iodine - I astatine - At</p> <p>Going down the group melting and boiling point of the Halogens increases.</p> <p>Displacement reaction - The more reactive element will displace a less reactive element from its compounds.</p> <p style="text-align: center;">fluorine + potassium chloride → potassium fluoride + chlorine</p> <p>chlorine is displaced because it is less reactive than fluorine</p> <p>Going down the group the Halogens become less reactive.</p> |

| Lesson 7 Group 0 | Lesson 8 Metals & Non-Metals | Lesson 9 Properties of Metals |
|--|--|----------------------------------|
| <p>Group 0 are unreactive gases.</p> <p>They are called the Noble gases.</p> <p>helium – He neon – Ne argon – Ar krypton – Kr xenon – Xe radon – Rn</p> <p>Going down the group melting and boiling point of the Noble gases increases.</p> <p>Noble gases are unreactive because they have a full outer shell of electrons.</p> <p>helium is used in balloons as it is less dense than air.</p> <p>neon is used in advertising lights.</p> <p>argon and krypton are used in double glazed windows.</p> | <p>The majority of elements are metals and they are found on the left and in the middle of the periodic table.</p> <p>Most metals share a lot of properties:</p> <ul style="list-style-type: none"> • They have high melting and boiling points meaning they are solid at room temperature • They are good conductors of heat and electricity • They are shiny in their appearance • They are malleable <p>Other common properties of metals are:</p> <ul style="list-style-type: none"> • They are hard and strong • Have a high density • They are sonorous <p>Conductor: A material which allows heat or electricity to move easily through it.</p> <p>Malleable: Capable of being hammered or pressed into a new shape without breaking</p> <p>Sonorous: Able to make a ringing sound when hit.</p> <p>Non-metals have properties in common with each other.</p> <ul style="list-style-type: none"> • Poor conductors of heat and electricity • Dull in their appearance • Weak and brittle <p>Some other common properties of non-metals are:</p> <ul style="list-style-type: none"> • Generally low melting and boiling points, meaning they are gases and liquids at room temperature • Not sonorous <p>Brittle: Something which is brittle is easily broken or shattered.</p> <p>An element doesn't have to have every property of metals for you to classify it as a metal! As long as it has most metal properties, you can be confident that it is a metal.</p> | |

| <p style="text-align: center;">Lesson 1 Contact and non-contact forces</p> | <p style="text-align: center;">Lesson 2 Mass and weight</p> | <p style="text-align: center;">Lesson 3 Balanced and unbalanced forces</p> |
|--|--|---|
| <p>A force is a push or a pull that acts on an object. We cannot see forces, but we can see their effects.</p> <p>Contact forces act between objects that are touching and non-contact forces act between objects that are not touching.</p> <p>Contact forces include</p> <ul style="list-style-type: none"> • tension, • friction, • air resistance, • upthrust, • thrust • and normal reaction force. <p>Non-contact forces include</p> <ul style="list-style-type: none"> • magnetic forces, • electrostatic forces • and gravitational forces. <p>Forces have a size (magnitude) and a direction.</p> <p>The unit of force is the newton (N)</p> <p>A device for measuring forces is called a force meter or newton meter.</p> | <p>Mass is the amount of matter and is measured in kilograms (kg) and is the same everywhere in the Universe.</p> <p>There are 1000 grams in 1 kilogram. To convert grams to kilograms, divide by 1000.</p> <p>Mass is measured using a top-pan balance</p>  <p>Weight is the force due to gravity. It is measured in Newtons (N) and changes throughout the Universe.</p> <p style="text-align: center;">weight = mass × gravitational field strength</p> <p>The gravitational field strength on Earth is approximately 10 N/kg.</p>  <p>Weight can be measured with a newton meter.</p> | <p>Multiple forces can act on an object. The forces acting on an object can be shown with a free body diagram.</p>  <p>The resultant force is the overall force acting on an object.</p> <p>When forces act in the same direction, the resultant force is equal to the forces added together.</p> <p>When forces act in opposite directions, the resultant force is equal to the difference between the forces.</p> <p>When the forces are balanced (equal to each other) the resultant force is 0 N. The object will not change speed or direction.</p> <p>If the resultant force is not zero, the forces are unbalanced and the object could speed up, slow down or change direction.</p> |

| <p style="text-align: center;">Lessons 4 and 5 Moments and the principle of moments</p> | <p style="text-align: center;">Lesson 6 Pressure on a solid surface</p> | <p style="text-align: center;">Lesson 7 Pressure in liquids</p> |
|--|---|---|
| <p>A moment is the turning effect of a force around a pivot. The pivot is the point around which an object can turn.</p> <p>Moment of a force = force \times perpendicular distance from the pivot</p> <p>The units for moment are newton metres (Nm).</p> <p>The principle of moments states that for an object to be balanced the total clockwise moment must be equal to the total anti-clockwise moment.</p> <div data-bbox="124 668 584 882" style="text-align: center;"> </div> <p>Lever act as force multipliers.</p> <p>A spanner with a long handle increases the distance from the pivot and so a smaller force is needed to undo a nut from a bolt.</p> <p>The handle of a door is far from the hinges so that a smaller force is needed to open or close the door.</p> | <p>Pressure is a measure of how concentrated a force is. It depends on the size of the force and the surface area it is spread over.</p> $\text{pressure} = \text{force} \div \text{area}$ <p>The units for pressure are pascals (Pa).</p> <p>One pascal is equal to one newton per square metre (1 N/m²).</p> <p>Pressure can also be measured in N/cm².</p> <p>It is easier to cut things with a sharp knife than with a blunt knife because the sharp knife has a smaller surface area and will exert a larger pressure on the object being cut.</p> <p>A snowboard has a large surface area which spreads the snowboarder's weight out and reduces the pressure exerted on the snow. This will stop them sinking into soft snow.</p> | <p>Pressure in a liquid increases with depth due to the increased mass of liquid above that point. The pressure will also depend on the density of the liquid.</p> <p>A partially (or totally) submerged object experiences a greater pressure on the bottom surface than on the top surface. This creates a resultant force upwards. This force is called the upthrust.</p> <p>An object floats when its weight is equal to the upthrust.</p> <div data-bbox="1454 639 1752 902" style="text-align: center;"> </div> |

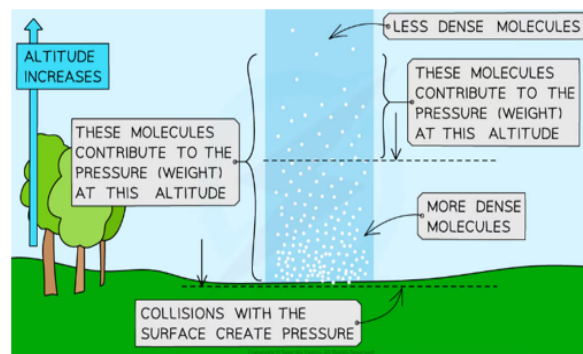
KS3 Science Forces

Lesson 8 Atmospheric pressure

The atmosphere is a thin layer of air round the Earth. The atmosphere gets less dense with increasing altitude (height above sea level).

Atmospheric pressure decreases as the height of a surface above ground level increases. This is because, as the altitude increases:

- the number of air molecules decreases
- the weight of the air decreases
- there is less air above a surface



Lesson 9 Forces and stretching

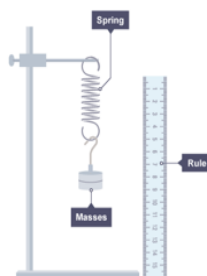
When a force is applied to an object it can change its size or shape. We call this **deformation**.

Deformation can either **stretch** (increase the length of) or **compress** (decrease the length of) objects.

Elastic materials will return to their original shape when the force is removed.

Inelastic materials will change shape permanently. This is called **plastic deformation**.

When you apply a force to a material it can extend. The **extension** is the amount the length has increased by.



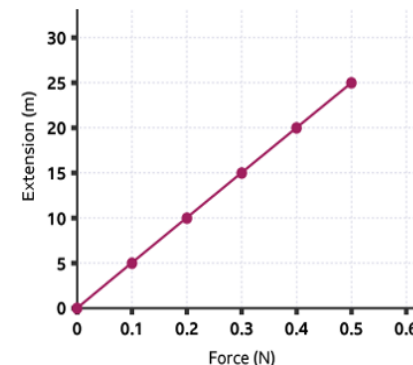
The **independent variable** is the weight applied to the spring.

The **dependent variable** is the extension.

Control variables include using the same spring for all the measurements.

Lesson 10 Force-extension graphs

A graph of force against extension can be used to show if an object has undergone elastic or inelastic deformation.



Most elastic objects follow **Hooke's Law** which states that the extension is **directly proportional** to the force applied. This means a graph of force against extension is a straight line through the origin.

Some materials will reach their **elastic limit** which is the point at which so much force is applied that the material will not return to its original shape and is **permanently deformed**.

Artists connect our senses & express ideas & emotions. Artists experiment & take risks.

"A work of art is a world in itself reflecting senses and emotions of the artist's world."

Hans Hofmann

Career Links: Fine Artist , Curator



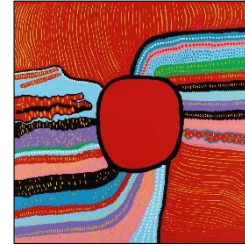
J.M.W. Turner, 1839



Wassily Kandinsky, 1911



Pablo Picasso, 1903



Yayoi Kusama, 2017



Paul Stone (a.k.a. My Dog Sighs), 2018

Art History – Key Information

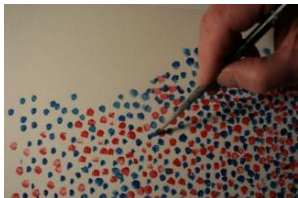
- There are 3 key phases in Art History: **Traditional, Modern & Contemporary.**
- **Traditional Art** = Art that is a part of the culture of a group of people, skills and knowledge of which are passed down through generations from master craftsmen to apprentices.
- **Modern Art** = Art in which the traditional styles and values of the past have been thrown aside in a spirit of experimentation, in particular art created between the late 19th and the late 20th centuries.
- **Contemporary Art** = The art of today, produced in the second half of the 20th century or in the 21st century. Contemporary artists work in a culturally diverse & technologically advancing world.

Artists References:

- **Abstract art** is art that does not attempt to represent an accurate depiction of a visual reality but instead use shapes, colours, forms and gestural marks to achieve its effect.
- **J.M.W Turner, 1839** was an English Romantic landscape painter who is famous for his expressionistic studies of light, colour and atmosphere.
- **Pablo Picasso** (born 1881, died 1973) was a Spanish artist one of the greatest and most-influential artists of the 20th century and the creator of Cubism.
- **Paul Stone (a.k.a. My Dog Sighs)** is a contemporary UK street artist who works with photorealistic paintings, recycled materials & sculptural installations.
- **Wassily Kandinsky** (born 1866, died 1944) was a Russian artist, one of the first creators of pure abstract art in modern painting.
- **Yayoi Kusama** is a contemporary Japanese artist and one of the world's most influential female artists, inspired by her own experiences and Pop Art.

Drawing & Painting – Key terms

- **Blending** = creating a smooth transition between 2 colours.
- **Colour mixing** = creating your own colours.
- **Composition** = the arrangement of the formal elements in an artwork .
- **Expression** = Expression is using art to communicate thoughts & feelings.
- **Layering** = gradually building up colours to create depth.
- **Limited palette** = a small selection of specific colours used to create harmony in a painting.
- **Mark Making** = is used to describe the different lines, patterns, and textures we create in art.
- **Palette** = the range of colours used by a particular artist or in a particular picture and the name of the board tray on which an artist mixes colours.
- **Scumbling** = painting a thin layer of paint with a dry brush over an existing layer
- **Stippling** = adding tiny dots of colour or texture -this technique was developed into an art style called Pointillism.
- **Sgraffito** = scratching through a layer of wet paint to reveal what's underneath.



Colour Theory - Keywords

- **Intensity** = how bright or dull a colour is.
- **Primary** colours are colours that cannot be mixed: Red, Blue, Yellow.
- **Secondary** colours are created by mixing together 2 primary colours.
- **Tertiary** colours are created by mixing a primary & adjacent secondary colour.
- **Complementary** colours = colours opposite one another on the colour wheel
- **Harmonious** colours = colours next to each other on the colour wheel
- **Warm / Cool colours** = colours that evoke a feeling of warmth or a cool feeling
- **Monochromatic** = tints & shades of 1 colour

| Primary | + | Secondary | = | Tertiary |
|---------|---|-----------|---|---------------|
| | + | | = | |
| YELLOW | | ORANGE | | YELLOW-ORANGE |
| | + | | = | |
| RED | | ORANGE | | RED-ORANGE |
| | + | | = | |
| RED | | VIOLET | | RED-VIOLET |
| | + | | = | |
| BLUE | | VIOLET | | BLUE-VIOLET |
| | + | | = | |
| BLUE | | GREEN | | BLUE-GREEN |
| | + | | = | |
| YELLOW | | GREEN | | YELLOW-GREEN |

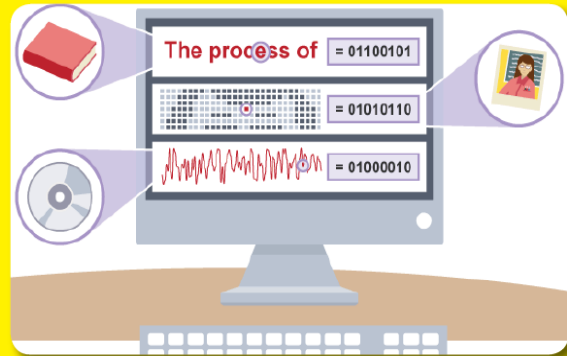
Computer Science

Year 7 - Computational Thinking Knowledge Organiser

What is Binary?

Binary is a number system that only uses two digits: 1 and 0. All information that is processed by a computer is in the form of a sequence of 1s and 0s. Therefore, all data that we want a computer to process needs to be converted into binary.

The only thing that computers understand is Binary.



internal/external representation of data

Computers use electrical signals that are on or off, so they have to see everything as a series of binary numbers. This data is represented as a sequence of 1s and 0s (on and off). All data that we want a computer to process needs to be converted into this binary format.

External representation of data means text, numbers, pictures and sound as humans see/hear them
Eg Abcd | 12345 | or a Picture

Internal representation of data is how computers store and transmit text, numbers, pictures and sound
Basically circuits on/off or 1's 0's
Eg 10000110101000100010010001111001010

Algorithms

An algorithm is a plan, a set of step-by-step instructions to resolve a problem. In an algorithm, each instruction is identified and the order in which they should be carried out is planned.

Algorithms & Flow Charts

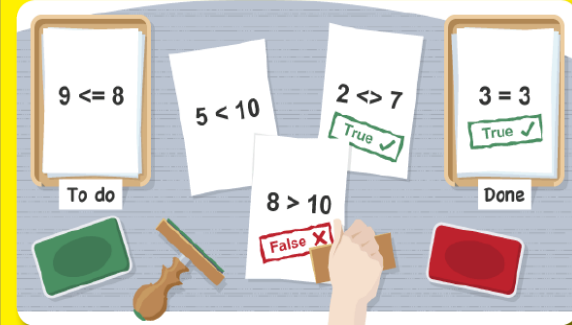
| Symbol | Name | Function |
|--------|--------------|--|
| | Start/End | An Oval represents a start or end point |
| | Arrows | A line is a connector that shows relationships between the representative shapes |
| | Input/Output | A Parallelogram represents an input or an output |
| | Process | A rectangle represents a process |
| | Decision | A diamond indicates a decision |

Binary

| | | | | | | | | | | | | |
|--|--|--|--|--|---------------|----|----|----|-----------|---|---|--------------------|
| | | | | | | | | | | | | |
| | | | | | 8 | 4 | 2 | 1 | | | | |
| | | | | | 5 = 0101 | 0 | 1 | 0 | 1 | | | |
| | | | | | | | | | 4 + 1 = 5 | | | |
| | | | | | | | | | | | | |
| | | | | | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
| | | | | | 95 = 01011111 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| | | | | | | | | | | | | 64+16+8+4+2+1 = 95 |

What is Boolean Logic?

Programs use simple comparisons to help make decisions. Boolean logic is a form of algebra where all values are either True or False. These values of true and false are used to test the conditions that **selection** and **iteration** are based around.



Boolean logic uses algebra and algebraic expressions. We use these expressions in algorithms and programs.

| Expression | Boolean equivalent |
|--------------------------|--------------------|
| Equals | = |
| Greater than | > |
| Less than | < |
| Greater than or equal to | >= |
| Less than or equal to | <= |
| Does not equal | <> |
| And | AND |
| Or | OR |
| Not | NOT |

Logic Gates

Complex electronics are made up of some simple components called Logic Gates



NOT Gate



AND Gate



OR Gate

Key Words

Binary
Denery
Input

Output
Decision
Process
Boolean
Algebra
Logic Gates

ANDGate
NOT Gate
OR Gate
Programming
Iteration
Selection

Computer Science

Year 7 - Python Knowledge Organiser

What is Python?

- Python is a **text-based programming language** that can be used to create small programs, web applications, games and even search engines like Google and YouTube!
- Python is easy to learn and is a great beginner language.



Print Statements

In order to display text in the shell you need to use a **Print statement**.

```
print ("Hello World")
print ("I am a programmer")
```

This is the Output:

```
Hello World
I am a programmer
```

Input statements

Using **var = input ()** we can ask a user to input some information. We can then print this back to the console window.

```
userName = input("what is your name?")
print ("Welcome ", userName)
```

userName is a variable. This means we can change the information stored. We can also name it whatever we want.

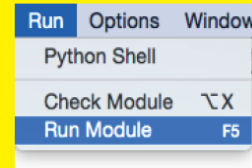
IF statements

IF statements can be used to select different options in a program depending on a condition. Also known as selection.

```
question = input("Are you revising?")
if question == "yes":
    print ("Well done!")
elif question == "no":
    print("Oh dear!")
else:
    print("I don't understand")
```

Executing a program

In order to run or test a program written in Python the user needs to go to Run and then Run Module.



Alternatively, you could press the F5 button on the keyboard.

Data types

Different types of data are stored in variables as different data types.

There are three main data types:
String, Integer & Float

String

A type of variable for storing text "strings"
e.g. "Hello World"

```
string = str("This is a string")
```

Integer

A type of variable for storing whole numbers
e.g. 10, 182, -44

```
integer = int("This is an integer")
```

Float

A type of variable for storing decimal numbers. Also known as a real number e.g. 2.5, 5.05, 3.14

```
decimal = float("This is a decimal")
```

Key Words

| | | |
|--------|--------------------|-----------|
| Input | Python Programming | String |
| Output | Print | Integer |
| | Syntax | Variable |
| | IF/ELIF | Interface |
| | | Float |

Syntax

Syntax is what we call the format that the code needs to be in, in order to be processed correctly.

If it is not in the correct format then the code will not work.

```
Traceback (most recent call last):
  File "C:/Python33/a.py", line 2, in <module>
    prin (greeting)
NameError: name 'prin' is not defined
>>>
```

Python tells us where the error is and what type it is. Here it says the line the error is on. Here it says what type of error.

Variables

A variable is something that can be used to store information. The information that is stored can be changed. Like the Score, number of Lives or Health in a game



Computer Science

Year 7 - Scratch Knowledge Organiser

What is Scratch?

Scratch is a visual programming language that allows you to create programs by dragging blocks of scripts.



Block menu

The block menu helps users pick which scripts they need to control various aspects of a program.

| | |
|--------|-------------|
| Motion | Events |
| Looks | Control |
| Sound | Sensing |
| Pen | Operators |
| Data | More Blocks |

Sprites

A sprite is a character or object in your game or animation. In order to give the impression that a character is moving you can change the sprites' costume.



Variables

A variable is used to store data for use in your program. Variables can be used to store lots of different types of data such as names, numbers and scores.



The data stored in a variable can be changed or "varied" depending on certain conditions within a program.



IF Statements

IF statements can be used to select different scripts of a program depending on a condition. Also known as selection.



Stage

The stage is the background of the project. Scratch uses co-ordinates to position different elements around the screen. Different backgrounds can be imported or you can create your own.



Operators

Operators are used for changing or comparing data. They can add, subtract, multiply and divide data



They can also check if values are less than, greater than, or equal to other values.



Loops

Loops are used as a way of repeating instructions. Also known as iteration



Repeats instruction forever.



Repeats a certain number of times.

Key Words

| | | |
|----------|------------|-----------|
| Program | Sprite | Data |
| Variable | Script | Loop |
| | Costume | Operator |
| | Background | Iteration |
| | Stage | Interface |

More Info...

If you are interested in doing more Scratch Programming why not visit the website.

<https://scratch.mit.edu>

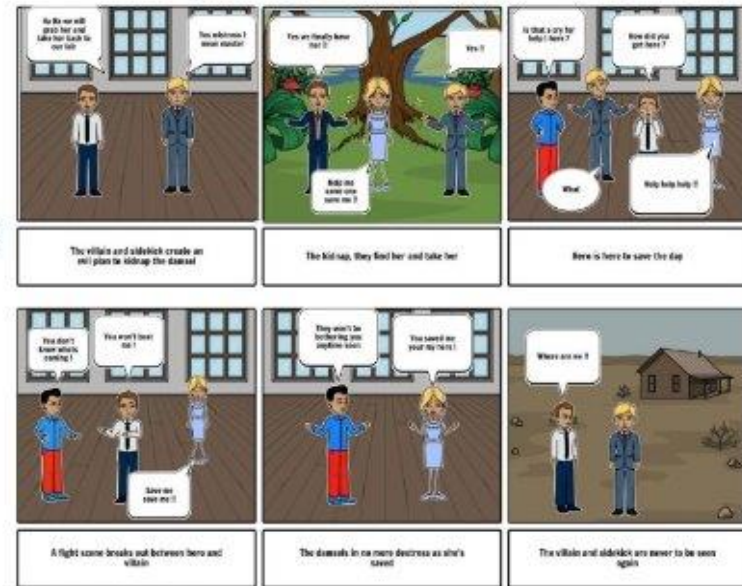
Sound Design

Purpose of Sound Design: convey a setting/time period/ time of day (weather) | create mood and atmosphere | Influence pace of performance

| | |
|----------------------|---|
| Sound effects | Sound effects are the artificial reproduction of sounds that help to create realism on stage |
| Diegetic | Diegetic sound is sound that a character can hear within the world of the play |
| Non-diegetic | Non-diegetic sound is sound that exists outside the world of the play. |
| Underscoring | Underscoring is the use of music underneath dialogue to help create an atmosphere or to convey a theme. |
| Soundscape | Soundscape is the process of layering one sound with another. This can be done live or pre-recorded. |

Year 7 – Unit 3 Melodrama

Melodrama Characters & Plot



Design used in Melodrama

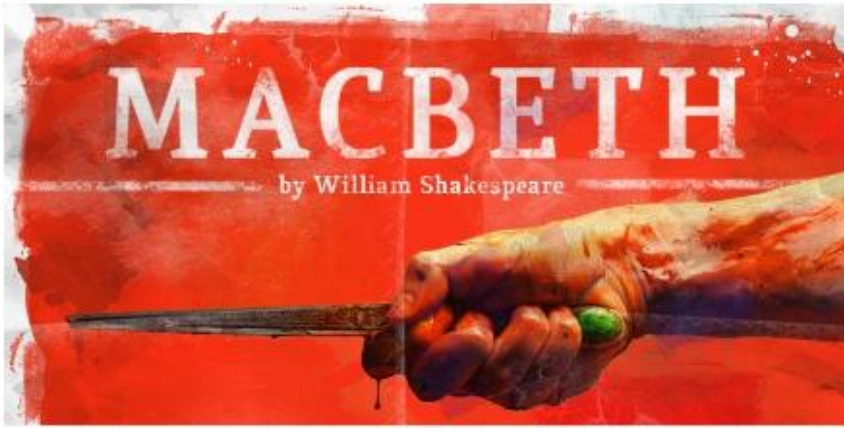
COSTUME With the characters being stereotypical, costume design in melodrama would usually reinforce these stereotypes. Colour might be used symbolically (red for danger, black for a villain, white for purity etc) and accessories might be added for dramatic effect, e.g. a cloak to swish menacingly.

SET & LIGHTING The set in a melodrama should create an atmosphere. There may be shadowy corners in which a villain could lurk. You may need several doorways for dramatic entrances/exits and thrilling chase sequences. Levels could also suggest status, such as high platforms for the powerful characters. The lighting could help create shadowy corners, or sudden flashes could add dramatic effect to surprise entrances. Colour could be used symbolically such as red for danger and white for purity.

SOUND & MUSIC Sound effects could be used in melodrama to add atmosphere – a stormy night, driving rain, howling wind, an advancing steam train. Effects could be added to actors' voices, such as echo for evil laughter. Fast music might increase the tension for a chase sequence; slow, creepy music might add tension to a dangerous situation.

Stock Characters

Stock characters are a form of stereotype, which we expect to see in a particular style of drama. Their appearance, behaviour and speech is predictable. In melodrama, we would expect to see, for example, the Maiden, the Hero and the Villain, and we would be able to identify them easily from their actions and appearance.



Key Things to Remember

- The play was written in 1606 but was set in the 11th century (Medieval period).
- In the play, King Duncan was a benevolent king and loved by all. In real life he was a weak king.
- Banquo is intrigued by the prophecies and does have ambitious thoughts, but he does not choose to act on these thoughts.
- There are many similarities between Banquo and Macbeth. They are both soldiers, they are both very patriotic at the start of the play and they are both considered to be brave and noble.
- Shakespeare believed the human nature is prone to evil and that people are greedy. He illustrates this in the Macbeths' desire to become King and Queen. This greed led them to resort to extreme measures such as regicide. In Macbeth's case, his greed led him to kill others, too.
- Macbeth kills Macdonald, Duncan, Duncan's guards and Young Siward himself.
- Macbeth orders the deaths of Lady Macduff, her family and household and Banquo.
- Macbeth is the only Shakespearean play set in Scotland.
- Macbeth's castle is in Inverness. The Royal Palace is in Dunsinane.
- The Gunpowder Plot occurred in 1605, one year before the play was written.

Themes

| | |
|-------------------------------|--|
| Ambition | The witches' prophecies spur Macbeth and Lady Macbeth to fulfil their ambitions, but they never <i>make</i> them do anything. |
| Fate and Free Will | What made it all happen? Fate? The witches? Macbeth's free will? |
| Good and Evil | Good and evil are shown through contrasts in the play. Evil is illustrated by the witches, Macbeth, Lady Macbeth, the assassins & traitors. Good is shown by Duncan, Malcolm, Banquo, Macduff, Lady Macduff. |
| The Supernatural | This is shown through the witches & LM calling upon the spirits. |
| Appearance and Reality | M and LM look innocent but are plotting behind people's backs. |
| Light and Darkness | Light links to good, life and God. Darkness links to evil and foreboding. |
| Guilt | Guilt is shown through M (internal conflict) and LM's blood imagery. |
| Gender | LM challenges and controls M. She subverts the gender stereotypes of the time. |

| Characters | |
|---------------------|--|
| Macbeth | A loyal warrior who becomes duplicitous as he becomes obsessed with the witches' prophecies of power. |
| Lady Macbeth | Macbeth's wife who drives his ambition in the beginning but loses her control by the end. |
| Banquo | Macbeth's close friend and ally who also receives prophecies. |
| Fleance | Banquo's son who represents innocence and justice. |
| Duncan | King of Scotland at the beginning of the play - a strong, respected leader. |
| Malcolm | Duncan's oldest son and next in line to the throne. Joins the English army to defeat Macbeth at the end of the play. |
| Donalbain | Duncan's youngest son disappears (to Ireland) after Duncan's murder. |
| Macduff | Macbeth's antagonist: A brave warrior who is loyal to Duncan and is consistently suspicious of Macbeth. |

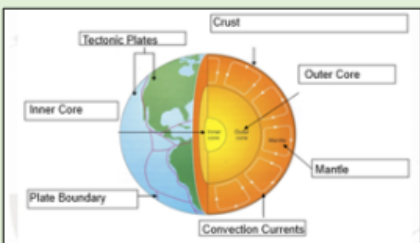


Lesson 1 Structure of the Earth

Core: The inner-most part of planet earth, divided into inner and outer core. It is made of iron and nickel and is over 5700 °C

Mantle: The layer within the Earth, found immediately below the crust. It is made of solid rock that can flow

Crust: The solid, outer layer of planet Earth. Thickest under mountains

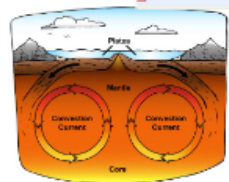


The Earth is split into 3 sections, core (inner and outer, mantle and crust). The crust is broken up into 7 major tectonic plates.

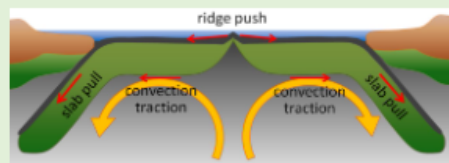
Earthquakes and volcanoes occur along these plate boundaries

1. Which section is the hottest?
2. What is the mantle made of?
3. Which is the thinnest section?
4. How many tectonic plates are there?
5. Where do earthquakes and volcanoes occur?

Lesson 2 How do plates move?



Convection Currents: The heating of the Mantle by the Core which causes it to rise and drag the plates along, before cooling and sinking



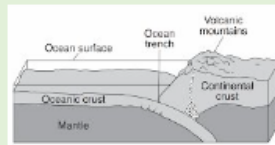
Slab Pull: The weight of the subducting plate being "pulled" by gravity into the mantle

1. Which plate is Europe on?
2. Which plate is the USA on?
3. Which is the hottest part of the Earth?
4. What is the name of the process which means heat rising?
5. What is the name of the process when the weight of the plate pulls it back into the mantle due to gravity?

Lesson 3 Plate boundaries

Oceanic Plate: Formed under oceans, denser, thinner, newer

Continental Plate: Formed on land, older, thicker, can't subduct



There are 7 main plates: North American, South American, African, Eurasian, Indo Australian, Pacific, Antarctic

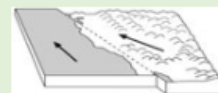
Plate Boundaries



Conservative boundary: Plates move past each other such as the San Andreas Fault in California

Destructive boundary: Oceanic plate and continental plate move toward each other such as Nazca Plate and South American plate

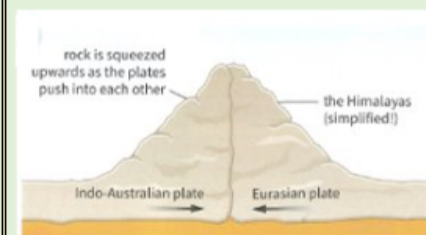
Constructive boundary: Plates move away from each other such as at the Mid Atlantic Ridge



1. Which plate can't subduct?
2. Which type of boundary describes where the plates move apart?
3. Which type of plate boundary has volcanoes?
4. What is the name of the plate boundary where plates move together

Lesson 4 What happens when two continental plates meet? Mountain building

Collisional boundary: Continental plates move together. Neither can subduct into the mantle so they just form mountains, forming mountains such as the Himalayas



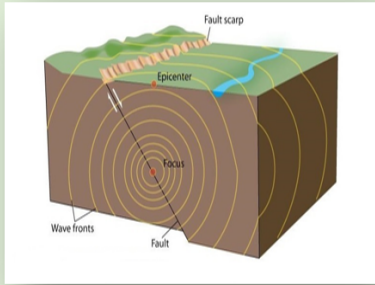
Make sure you can locate the Himalayas, Rockies, Alps, Urals, Pyrenees and Andes Mountains



1. Which types of plates are involved in mountain building?
2. Which is the highest mountain range in the world?
3. What is the mountain range in France, Switzerland, Germany, Austria and Italy called?

Lesson 5 Why do Earthquakes occur?

Earthquakes occur at plate boundaries. The most violent occur at destructive and conservative plate boundaries.



Focus: point within the earth where an earthquake starts.

Epicentre: The place on the surface immediately above the focus

Seismic waves: These waves radiate outwards and cause damage

Richter Scale: A way of measuring earthquakes

Earthquakes occur when the plates get stuck due to **friction** but keep trying to move, building up strained energy! When they get stuck, pressure builds up and the plates will suddenly move causing an earthquake. Seismic waves radiate outwards

There are **Primary** and **Secondary effects**

1. What is the point within the earth where an earthquake starts.
2. What is the point on the Earth's surface called where the waves radiate outwards ?
3. What are the waves of energy called?
4. Why do the plates get stuck?

Lesson 6 What happened in Sichuan?

Date: Monday 12 May 2008

Time: 2.28 pm

Magnitude: 7.9 on the Richter Scale with the focus only 19 km deep

Epicentre: In the mountains of Sichuan Province.

Primary Effects

Over 87 000 dead, over 370 000 injured
Infrastructure damaged at a cost of £120 billion

Communications damaged.

70 000 schools were destroyed.

Buildings collapse

Secondary Effects

200 000 landslides, 800 quake lakes

Roads **blocked**, making rescue & aid delivery difficult

Leaking gas can start **fires**

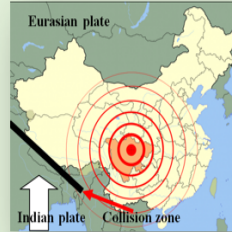
5 million **homeless**

Businesses damaged/destroyed causing unemployment

Telephone/communication systems damaged/destroyed so people **are isolated and cut off**

Shortage of clean water & sanitation, causing **disease**

1. How many people died and how many homeless?
2. Which plates were involved?
3. What type of margin was this?
4. What did the earthquake measure on the Richter scale



Lesson 7 What were the responses in Sichuan?

Responses to the Sichuan earthquake

The Premier flew into the area 90 minutes after it had happened to oversee rescue effort.

50 000 troops were mobilised but found it difficult to reach rural areas as roads had been damaged or blocked.

The NY Times reported that the first 72 hours are critical and were wasted.

3 days later an additional 90 helicopters were mobilised to distribute tents, food and water.

There was an inquiry into the poorly built school building. But as of today, no-one has been held responsible and no families have received compensation



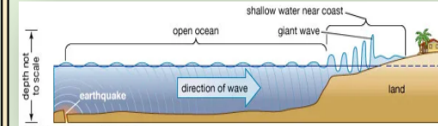
1. What is the level of development in Sichuan?
2. How many people died?
3. How many were made homeless
4. How many troops were mobilised?
5. How many helicopters were scrambled and how many days later did they come?

Lesson 8 What is a Tsunami?

Japanese word translates as '**harbour wave**'. Usually caused by earthquakes, volcanic eruptions and landslides.

A sudden movement of the **water column** in the ocean, and it creates **fast moving waves**.

A tsunami is a series of waves that causes **inundation** (they flood a long way inland)



1. Earthquake happens below the oceans surface.
2. Series of waves travel through **deep water**
3. The **wave length** is so long that they can be **unnoticeable** in deep water
4. When the waves get to shallow water they start to **shoal** (crest/ build up)
5. Waves hit the coastline at high speeds and **inundate** the coastline

They can be predicted using a combination of seismometers to detect earthquakes and buoys to detect wave height

1. What causes Tsunamis?
2. Are the wave noticeable in deep water?
3. What is the word used to describe how the wave "builds up" when it reaches shallow water
4. Why are they so damaging to coastlines?
5. How can they be predicted?

Lesson 9 What happened on Boxing Day in 2004?

The Indo- Australian Plate Subducted under the Eurasian Plate causing a magnitude 9 earthquake and 60m wave

Effects

14 countries were affected, the most severe being Indonesia (Sumatra), Thailand, Sri Lanka, India

230 000 people lost their lives
65 000 were seriously injured



Hundreds of fishing communities lost their boats

Two million were made homeless
Crops and drinking water were contaminated with salt

Responses

\$6.25 billion was donated in aid by 14 countries

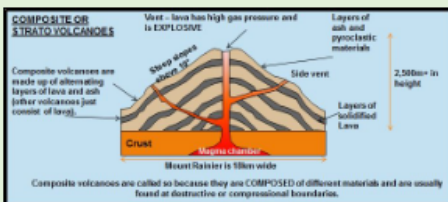
The Australian military helped with search and rescue providing amphibious landing craft, 2 helicopters from a naval warship
People were buried in mass graves to stop the spread of disease
A new Indian Ocean Tsunami Warning System was set up in June 2006.

Questions

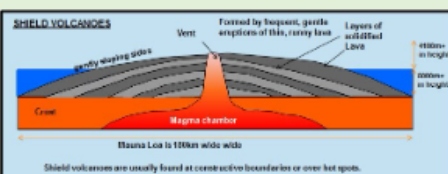
1. In which ocean did the earthquake occur?
2. Why was the death toll so high?
3. How many countries were affected?
4. Will there be an event as severe as this in the future?

Lesson 11 Are all volcanoes dangerous?

Composite Cone Volcanoes occur on destructive plate margins and are more violent and dangerous



Shield Volcanoes occur on constructive plate margins and wider and lower and less dangerous



Volcanoes can have various hazards including lava (molten rock), volcanic bombs (large rocks), gas, ash, pyroclastic flow (a mixture of ash, gas, lava that travels at 200 kph).

Questions:

1. What type of boundary does a composite cone volcano occur on?
2. What is the shape of a shield volcano?
3. Which volcano has runny lava that flows a long way?
4. Draw a simple diagram of each volcano

Lesson 12 What happen in Iceland in 2010?

Iceland lies on the **Mid Atlantic Ridge**, a **constructive plate margin**.



Causes

The **Eurasian plate** is moving away from the **North American Plate**. There are many volcanoes on Iceland E15 is located on the SW coast.

On 14th April E15 started to erupt more violently. It melted the glacier which poured onto the lava and caused steam and ash to rise 11 km into the air.

It entered into the **jet stream**.

Effects

No death or injury
150m ice cap melted.
Homes and roads were damaged.
20 farms and the surrounding farmland was damaged by the Jokullhaups
10 million air passengers (100 00 flight cancelled) had their travel disrupted.
Airlines lost \$2 billion
Flowers from Kenya could not be flown to Europe

Questions:

1. Which country is E15 located on?
2. Which two plates is it located on?
3. What is on top of E15?
4. How high did the ash go?
5. How many flights were grounded?

Lesson 13 Why live in a danger zone?

Farming

Volcanoes produced ash which is weathered overtime into the soil, it makes it **really fertile**. That means the soil now can produce **more and better quality crops**



Tourism

Volcano tourism is big business for communities. Millions of tourists visit volcanoes and other features such as the Blue Lagoon in Iceland.

Mining

Lava from deep within the earth contain **minerals** that can be extracted. These include gold, diamonds, silver, copper and zinc. Towns develop around these.

Geothermal energy

It uses **steam from underground** which has been heated by **magma**. The steam drives turbines which creates the energy. Iceland create their electricity this way.

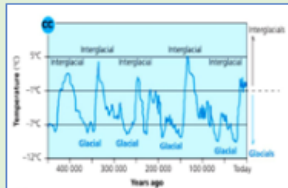


Questions:

1. State the 4 main reasons for living in a danger zone
2. What heats the water in geothermal energy?
3. What is the word used to describe the farm land?

Lesson 14 Fire and Ice: What other processes have shaped Iceland?

The Ice Age is a period on Earth's geological history that started around 70,000 years ago. It is estimated that



about 1/3 of the Earth was covered in ice, and some of the ice sheets were up to a mile thick

Ice sheets, unlike alpine glaciers, are not limited to mountainous areas. They form broad domes and spread out from their centres in all directions. The largest ice sheet in Iceland is the **Vatnajökull Ice Sheet**. It covers nearly 8000 km²



Alpine glaciers form on the sides of mountains and move downward through valleys. Sometimes, alpine glaciers create or deepen valleys by pushing dirt, soil, and other materials out of their way.

Questions

1. When did the last ice age start?
2. What was the average global temperature?
3. How much of the earth was covered in ice?
4. What is the largest ice sheet in Iceland?

Lesson 15 How is Vatnajökull shaping Iceland?



Freeze thaw

This occurs when water continually seeps into cracks, freezes and expands (by about 9%), this process continues eventually breaking the rock apart.



Plucking The glacier freezes around rocks. As the glacier moves down hill it "plucks" the rocks from the slope and transports them down hill.

Abrasion As a glacier moves, the ice (and rock within the glacier) scrapes against the rock, slowly removing the top layer. It can smooth it down and cause scars

Questions

1. Which type of erosion breaks rocks apart by water freezing?
2. Which type of erosion smooths down the rock?
3. What is the part of a glacier called where it melts?
4. What are the inputs of a glacier?
5. What are the outputs of a glacier?

Lesson 16: What landforms do glaciers create?

How do glaciers form?

Snowflakes collect in a hollow, they are compressed to become **firn** or **neve**. This then becomes compact to become a glacier. After an ice age, a lake may form in the hollow called a **tarn**. A **corrie** has three distinctive features: a steep back wall, an over-deepened hollow and a lip.



Glaciers cut **U-shaped** valleys with a flat floor and steep sides. The glacier widens, steepens, deepens and smooths V-shaped river valleys.

An **arête** is a knife-edge ridge. It is formed when two neighbouring corries run back to back. As each glacier erodes either side of the ridge, the edge becomes steeper and the ridge becomes narrower.

Corries, also known as cwms or cirques, are often the starting point of a glacier.

Questions

1. What is the key term given to a thin ridge?
2. What is the key term for a lake that forms where a glacier used to be?
3. What is the term for a triangle-shaped mountain that has been eroded on 3 sides?
4. What is the shape of a valley caused by a glacier?
5. What do we call a valley that is above another?

Glossary

Core the centre of the earth

Crust the thin layer at the earth's surface

Plates sections of the earth's crust

Convection currents changes in the flow and pressure of the earth's mantle affecting Plate movement

Subduction zone where a plate is sinking and melting

Lava the name given to molten magma when it erupts at the surface

Vent the opening through which the lava flows in a volcano

Richter scale measures the strength of an earthquake

Focus the point on the earth's surface directly above the epicentre

Epicentre the point within the earth's crust where the primary earthquake occurred

Primary effects (of an earthquake) the direct effects of an earthquake e.g. buildings collapsing

Secondary effects (of an earthquake) the indirect effects e.g. fire, tidal waves, disease

Tsunamis huge tidal waves caused by submarine earthquakes

Year 7 History Cycle 1: What kind of things mattered to medieval people?

| Year 7 History Cycle 1: What kind of things mattered to medieval people? | | | Key Words | | |
|--|---|---|-----------|------------------------|--|
| 1 | In this unit we are going to be looking at the medieval period. The medieval period is also referred to as the Middle Ages . It is usually considered to go from about 400 AD – 1450 AD . | | | | |
| <u>Medieval Life</u> | | | 13 | purgatory | A place the souls of dead people went to before going to either Heaven or Hell. A kind of waiting room for souls. |
| 2 | religion | Almost everybody believed in the God and that Heaven and Hell were real places. The main Christian Church was the Roman Catholic Church . The pope was the leader of the Catholic Church . | 14 | Christian | A person who believes in the teachings of Jesus Christ. |
| 3 | medicine | Doctors did not understand what caused people to be sick and often believed it was a punishment sent by God and evil spirits. This meant their cures were often not very effective. E.g trepanning and praying. | 15 | Catholic Church | The Catholic Church , also known as the Roman Catholic Church , is the largest Christian church. It was the main Christian church of the Middle Ages . |
| 4 | law and order | There was no police force in medieval England. A lack of scientific understanding made it hard to catch criminals. Trials were used to test guilt or innocence. They believed God would punish the guilty. | 16 | doom painting | Is the term used to describe paintings that can be found the walls of churches and other religious building that show judgment day and souls either going to Heaven or Hell. |
| 5 | fun & games | Ordinary people did not have holidays. Instead, they had 'holy days' off - our word holiday comes from this. After attending church peasants were free to play games: Football, shin hacking, archery. | 17 | the pope | The head of the Catholic Church |
| | | | 18 | disease | A disease is something that affects the normal functioning of an organism. In humans this can make them very sick. |
| 6 | medieval society | Medieval society was still based on the feudal system that William the Conqueror had introduced. The king sat at the top of society. The Barons, wealthy and important individuals, came next. Then it was the knights followed by the largest group in society, the peasants or villeins. | 19 | miasma | Miasma is an unpleasant or unhealthy smell or vapor. In the Middle Ages people believed this could make you sick. |
| | | | 20 | Crusades | a series of medieval military expeditions made by Europeans to recover the Holy Lands from the Muslims in the 11th, 12th, and 13th centuries. |
| 7 | women | More is known about upper and middleclass women from the Middle Ages as we have sources containing information about them. On the other hand, it is very difficult to find information on working class women as they produced very little information about themselves and others were more interested in documenting the lives of the rich and powerful. We do know they lived hard lives. | 21 | sanctuary | A safe place. In the Middle Ages this could be a religious building. |
| | | | 22 | trepanning | Trepanning was used by ancient doctors as a cure to illnesses that affected the head, e.g. migraines. It involved making a hole in a person's skull to release the evil spirits they believed were causing the problem. |
| 8 | Crusades | The Crusades were a series of religious wars fought in the Middle Ages between the Christians and Muslim . The First Crusade like many was fought over control of the Holy lands. | 23 | Jerusalem | Was the main city of the Holy Lands . It is an important religious centre for Christians , Jews and Muslims and was the Crusaders' capital city. |
| 9 | The Black Death | The Black Death or Bubonic Plague arrived in Europe in 1347. The first recorded victims in England were in 1348. People at the time had not idea what was causing the plague . Many believed it was sent by God as a punishment for their sins or thought it was a result of movement of the planets. Others looked for more rational causes like bad smells (miasma). | 24 | Holy Lands | The lands that are mentioned in the Bible as being the places where Jesus lived his life and carried out his many deeds. |
| | | | 25 | bleeding | Bleeding or bloodletting was the process of removing blood from a patient. This could be done by cutting or using leeches to suck blood. |
| <u>Key People</u> | | | 26 | Muslim | a follower of the religion of Islam |
| 10 | Pope Urban II | Called for the first Crusade in 1096. He promised people that all their sins would be forgiven if they went on crusade to the Holy Lands and the city of Jerusalem . | 27 | clergy | A person who is ordained into the church. E.g priest, bishop, pope |
| | | | 28 | midwives | Women in the Middle Ages who helped with childbirth |
| 11 | Edward I | King of England from 1272 to 1307. He was responsible for introducing the foundations of the modern legal system in England. | 29 | plague | a contagious bacterial disease characterized by fever and delirium, typically with the formation of buboes . |
| 12 | Galen | A Greek physician / surgeon in the Roman Empire. His understanding of the body was based on the dissection of animals. His ideas were used by doctors in the Middle Ages | 30 | buboes | a swollen inflamed lymph node (swelling) in the armpit or groin |

Year 7 History. Cycle 2A: Why are we wrong to view Pre-Columbian civilisations as uncivilised?

Key civilisations

1 In this enquiry we will trace the historical timeline of Pre-Columbian civilisations in Mesoamerica and compare them with Europe. We will compare the civilisations and judge which was the most advanced.

Timeline

| | |
|---|--|
| 2 | 1200 BCE – Start of the Olmec civilisation. |
| 3 | 250-950 CE - the Classic Maya Period, which saw the emergence of the great cities of the Yucatec Maya. |
| 4 | 900 CE – Start of the Toltec civilisation. |
| 5 | 1325 CE - the Aztec capital of Tenochtitlan was founded. |
| 6 | 1400 CE – Inca empire emerges in South America. |
| 7 | 1492 – Columbus arrives in the Caribbean. |



Key Vocabulary

| | | |
|----|----------------------|---|
| 8 | Civilisation | Civilisation is an advanced stage of human society, where people live with a reasonable degree of organisation, comfort, and can think about things like art and education. |
| 9 | Empire | A group of territories or peoples under one ruler. |
| 10 | Conquest | To overcome and take control of a place through military force. |
| 11 | Mesoamerica | A historical and cultural area in North America. It extends from approximately central Mexico through Belize, Guatemala, El Salvador, Honduras, Nicaragua, and northern Costa Rica. |
| 12 | Pre-Columbian | The civilisations of the Americas before they were discovered by the Spanish. |
| 13 | Indigenous | Originating or occurring naturally in a particular place; native. |
| 14 | Conquistador | A conqueror, especially one of the Spanish conquerors of Mexico and Peru in the 16th century. |

| | |
|--|---|
| 15. Olmec 1200 BCE – 400 BCE | <ul style="list-style-type: none"> From 1200 BCE until 400 BCE, Olmec civilisation flourished in Mesoamerica, specifically in the Gulf of Mexico. Established a government and capital (San Lorenzo, then later La Venta – where the first known pyramid in Mesoamerica was built). In Nahuatl language, the term 'Olmec' means 'rubber people.' Pyramid temples, art, religion, and astronomy were among their contributions to subsequent civilisations. Used a 'slash and burn' farming method, a method of growing food in which wild or forested land is cut down and any remaining vegetation burned. The resulting layer of ash provides the newly-cleared land with a nutrient-rich layer to help fertilize crops. Sometime between 400-300 BCE, the Olmec capital of La Venta was destroyed and the civilisation ended. |
| 16. Maya 250 BCE – 950 CE | <ul style="list-style-type: none"> Located in southern Mexico and into Central America. Built huge cities in the jungle with large palaces, temples and pyramids. Developed their own hieroglyphics – a writing system using picture symbols. Developed a complex numbering system, with the use of zero. Their calendar consisted of 365 days and was used to keep track of the changing seasons. Mayans had the only fully developed language of the pre-Columbian cultures. This civilisation also produced spectacular art, as well as sophisticated mathematical and astronomical systems. Gold may have ultimately led to the demise of the Maya. The Maya were skilled craftsmen who worked the precious yellow metal into highly detailed ornaments and figures. Precious metals such as gold and silver were one of the main motivating factors that drew the Spanish to overtake them. The last Mayan stronghold fell to the Spanish Conquistadors in the late 1600's. |
| 17. Toltec 900 CE – 1150 CE | <ul style="list-style-type: none"> From 900 CE until 1150 CE, the Toltec civilisation flourished in Mesoamerica. The capital of Tollan witnessed the heritage left by earlier Olmec civilisations. The term 'Toltec' originated in Nahuatl language which means 'cultured person' or some said a 'metropolis.' They were Polytheistic - Belief in or worship of more than one god. Quetzalcoatl, or the feathered-serpent, served as their main deity (God), which later became the central deity of the Aztecs. The Toltecs carried out human sacrifice. |
| 18. Aztec 1200 CE – 1521 CE | <ul style="list-style-type: none"> Around 1300 CE the Aztecs settled on an island in the centre of the valley of Mexico called Tenochtitlan, near Lake Texcoco. The Aztec civilisation flourished until 1521. The Aztecs grew corn. Were master stoneknappers, able to create some of the finest blades. Stone knives were often used as offerings or in special rituals. The Aztecs were nomadic – they moved from one place to another. They observed the sky and aligned their temples based on the movements of the sun and moon. Worshipped many gods. The most important was the Sun God. They believed the Sun God needed human blood to continue his journeys across the sky. For this reason they practiced human sacrifices to keep the universe in motion. Used a caste system - order of society – a high priest at the top, followed by the council composed of the royal family, the nobles, the merchants and artisans, and finally at the bottom were slaves. |
| 19. Inca 1425 CE – 1532 CE | <ul style="list-style-type: none"> Ruled an empire covering much of present day Peru, Ecuador, Bolivia and Chile. The empire became the largest in Pre-Columbian America. Built aqueducts, cities, temples, fortresses, tunnels, suspension bridges, and 2,250 miles of roads. The Inca had a great understanding of mathematics and agriculture. They also knew about hydraulics, astronomy, architecture, and military strategy. The Inca had skills in music, textiles, wood and stone carving, art, and poetry. The Inca were also highly skilled in working with all types of metals. Never developed a form of writing. Used quipu – bundles of knotted and coloured strings to count, keep records and send messages. The Incas worshipped many gods and goddesses. Constructed vast stone buildings high in the Andes – Machu Picchu. The Inca Empire lasted until the Spanish conquest in the 1530's. |

Year 7 History Cycle 3A: The Reformation

- 1 This enquiry will focus on the Reformation which was a significant historical event based on changes to the church, with far-reaching consequences. We will look at what it was, the reasons for it and consider how far the people of England and Wales supported the ideas of the Reformation.



Timeline

| | |
|---|---|
| 2 | 21 st April 1509 – Henry VII died and was succeeded (followed on the throne) by Henry VIII. |
| 3 | 1517 – Martin Luther began his protests against the Catholic Church in Germany. A protestant. |
| 4 | 1534 – Henry VIII began to separate from Rome (the Catholic Church) with the Act of Supremacy. |
| 5 | 1536 – Dissolution of the monasteries starts. Carries on till 1541. |
| 6 | 1549 – Edward VI made Catholic worship in England illegal (against the law). |
| 7 | 1555 – Mary I burned Protestants at the stake. |
| 8 | 1559 – Elizabeth's religious settlement. Made England and Wales protestant again, but with some compromises |

Key Questions




| | | |
|---|--|--|
| 9. What was the difference between Catholic and Protestant beliefs and practices? | <p>Catholic</p> <ul style="list-style-type: none"> The Bible should be written and read in Latin. Elaborate ceremonies. Churches should be beautiful and contain ornate decorations and statues. Church – strict hierarchy with the Pope, the voice of God, at the top. Being a good Christian is about performing sacraments, following the Pope's rules and following the Bible. | <p>Protestant</p> <ul style="list-style-type: none"> The Bible should be written in the language of the people reading it. Church services should be simple and focused on the Bible. Churches should be plain so that worship focuses on the bible. There shouldn't be a strict hierarchy, because everyone is capable of communicating with God. The most important part of being a Christian is studying and following the Bible. |
| 10. Why did Henry VIII Break with Rome? | <ul style="list-style-type: none"> In 1529 Henry wanted to divorce Catherine of Aragon but the Pope would not let him. Anne Boleyn liked Protestant ideas and wanted changes in the church. People thought the Catholic Church was corrupt and making money from them. If Henry could stop money going to Rome he could raise extra money for Wars. | |
| 11. How far did the people of England and Wales support the ideas of the Reformation? | <p>Examples of support for the Reformation Anne Boleyn, Edward VI and Elizabeth I agreed with the Protestant faith. Henry VIII's archbishop of Canterbury, Thomas Cranmer, was a protestant. In Exeter, Thomas Benet and Agnes Prest were burnt at the stake for promoting the Protestant faith. During the reign of Mary I many Protestants fled abroad for safety, many others were burnt at the stake. It is likely that there was more support for the Protestant faith in the south-east of England and support grew over time, particularly after the harshness of Mary's Catholic reign.</p> <p>Examples of opposition to the Reformation When Henry VIII first heard about Martin Luther's protestant ideas, he wrote a book defending the Catholic Church. Thomas More and Bishop Fisher refused to accept Henry VIII as head of the church and were executed in 1535. There was much opposition to the closure (dissolution) of the monasteries ordered by Thomas Cromwell, during the reign of Henry III. In 1536-37, the Pilgrimage of Grace was a significant uprising focused on the closure of the monasteries, the abbot of Glastonbury was executed in 1539 for refusing to accept the abbey's closure. The Western/Prayer Book rebellion of 1549 opposed Edward's Protestant reforms.</p> <p>Examples of acceptance – it is likely that many people went along with the religious doctrines of the monarch in power, probably keeping their personal opinions private. The villagers of Morebath illustrate this.</p> | |

Key Words


| | | |
|----|------------------------------------|---|
| 12 | Dynasty | A dynasty is a series of leaders in the same family. E.g. The Tudor dynasty (1485 - 1603). |
| 13 | Heir | A person who will inherit the crown after the current King or Queen dies. |
| 14 | Reformation | The growth of the Protestant religion after 1517, and the changes made by the Protestants in the churches. |
| 15 | Protestant | A group of people who protested against the Catholic church. They believed in plain, simple churches and worship to focus on the Bible. |
| 16 | (Roman) Catholic | Led by the Pope. They believed in beautiful decorated churches and wanted church services to be in Latin. |
| 17 | Church of England | The Protestant church set up in England after the Break with Rome. Also known as the Anglican Church |
| 18 | Puritan | Extreme Protestants, who wanted a very 'pure' religion, free from all the practices of the Roman Catholic faith. |
| 19 | Pope | The leader of the Catholic Church. |
| 20 | Priest | A person who was in charge of the village church. |
| 21 | Monk | Men who devote their lives to God. |
| 22 | Martyr | Someone who dies for their faith. |
| 23 | Monastery | Religious house led by an abbot |
| 24 | Faith | When you have faith, you trust or believe in something very strongly. |
| 25 | Doctrine | A doctrine is a set of beliefs. |
| 26 | Vestments | Special robes to wear during church services. |
| 27 | Opposition Oppose | To go against, disagree with or to challenge. Can be peaceful opposition or can be violent. |
| 28 | Act of Supremacy | The Act of Parliament in 1534, which declared that Henry VIII was the supreme ruler of the Church in England. |
| 29 | Dissolution | To close something or bring something to an end. |
| 30 | Clergy | People who work for the church e.g. priest, bishop, |




'Fr LC2 Sentence Builder 1 – Where I live: Où habites-tu?

| Verb | noun | location | country | preposition | noun |
|--|--|---|---|---|---|
| J'habite Tu habites Il/elle/on habite Nous habitons Vous habitez Ils/elles habitent | dans une maison (in a house)  dans un appartement (in a flat)  | dans le sud (in the south) dans le nord (in the north) dans l'ouest (in the west) dans l'est (in the east)  | du pays de Galles (of Wales) de la France (of France) de l'Espagne (of Spain) de l'Angleterre (of England) de l'Australie (of Australia) de l'Allemagne (of Germany) des États-Unis (of the USA) | près de (near to) loin de (far from) | la plage (the beach) la campagne (the countryside) la lande (the moor) la ville (the town) la grande ville (the city) la rivière the river) la montagne (the mountains) |


Y7Fr LC2 Sentence Builder 2: My town: Ta ville est comment?

| Opinion phrase | noun & verb | adverb | comparative | adjective | conjunction | noun |
|---|---|--|---|---|------------------------------|---|
|  <p>Je pense que (I think that)</p> <p>À mon avis (in my opinion)</p> <p>Je dirais que (I'd say that)</p> | <p>ma région est (my region is)</p> <p>mon pays est (my country is)</p> <p>ma ville est (my town is)</p> | <p>beaucoup (much)</p> <p>un peu (a bit)</p> | <p>plus (more)</p> <p>moins (les)</p> | <p>grand(e) (big)</p> <p>petit(e) (small)</p> <p>intéressant(e) (interesting)</p> <p>animé(e) (lively)</p> <p>bryant(e) (noisy)</p> <p>tranquille (peaceful)</p> <p>historique (historical)</p> <p>industriel(le) (industrial)</p> <p>joli(e) (pretty)</p> <p>moche (ugly)</p> <p>barbant(e) (boring)</p> | <p>que (than)</p> | <p>Londres (London)</p> <p>Cornouailles (Cornwall)</p> <p>la France (France)</p> <p>la Belgique (Belgium)</p> <p>la Suisse (Switzerland)</p> <p>Paris</p> <p>la grande ville (the city)</p> <p>la campagne (the country)</p> |

Y7Fr LC2 Sentence Builder 3: places: Qu'est-ce qu'il y a dans ta ville ?

| Noun phrase | | verb | indirect object pronoun | noun | connective | verb | infinitive |
|--|---------------------|---|-----------------------------------|---|---|--|--|
| <p>J'aime Tu aimes Il/elle/on aime Nous aimons Vous aimez Ils/elles aiment</p> <p>I like You like He/she/one likes We like You like They like</p>  | <p>la ville car</p> | <p>il y a (there is/are)</p> | <p>un (a)</p> | <p>parc (park) centre commercial (shopping centre) centre sportif (sport centre) musée (museum) théâtre (theatre) cinéma (cinema)</p> | <p>où (where)</p> | <p>je peux (I can)</p> <p>on peut (we can)</p> | <p>jouer (play) traîner (hang out) passer un bon moment (have a good time)</p> |
| | | | <p>une (a)</p> | <p>mairie (town hall) piscine (swimming pool) plage (beach) bibliothèque (library) place (town square) patinoire (ice rink)</p> | | | |
| | | <p>il n'y a pas (there isn't/aren't)</p> | <p>de</p> | <p>parc (park) centre commercial (shopping centre) centre sportif (sport centre) musée (museum) théâtre (theatre) cinéma (cinema) mairie (town hall) piscine (swimming pool) plage (beach) bibliothèque (library) place (town square) patinoire (ice rink)</p> | | | |

Y7Fr LC2 Sentence Builder 4 – Hobbies & Weather : Que fais-tu quand il fait beau ?

| Adverb | verb | present tense ER verb | connective | noun |
|---|---|--|---------------------------|--|
| <p>Quand (when)</p> <p>Si / s' (if)</p> | <p>il fait beau (it does nice weather)</p> <p>il fait mauvais (it does bad weather)</p> <p>il pleut (it rains)</p> <p>il y a du soleil (there is sun)</p> <p>il fait chaud (it does hot)</p> <p>il fait froid (it does cold)</p> <p>il neige (it snows)</p>  | <p>je chante (I sing) on chante (we sing)</p> <p>je danse (I dance) on danse (we dance)</p> <p>j'écoute de la musique (I listen to music) on écoute de la musique (we listen to music)</p> <p>je joue au foot (I play football) on joue au foot (we play football)</p> <p>je joue aux jeux en ligne (I play games online) on joue aux jeux en ligne (we play games online)</p> <p>je joue de la guitare (I play the guitar) on joue de la guitare (we play the guitar)</p> <p>je surfe sur internet (I surf the internet) on surfe sur internet (we surf the internet)</p> <p>je regarde la télé (I watch the TV) on regarde la télé (we watch the TV)</p> <p>j'étudie pour le college (I study for school) on étudie pour le collège (we study for school)</p> | <p>avec (with)</p> | <p>mes copains/amis (my friends)</p> <p>ma famille (my family)</p> <p>ma copine/ mon amie (my friend – female)</p> <p>mon copain/ mon ami (my friend – male)</p> |

Y7Fr LC2 Sentence Builder 5: Building sentences – Tu aimes ta région? Pourquoi?

| Opinion verb | noun | connective | verb | adjective | connective | verb | adjective | | |
|---|--|-----------------------------------|--|---|-------------------------|--|---|---|--|
| J'adore (I love) | mon pays (my country) ma région (my region) ma ville (my town) où j'habite (where I live) | parce que/qu' (because) | c'est (it's) | intéressant (interesting) animé (lively) tranquille (quiet) historique (historic) industriel (industrial) beau (beautiful) moche (ugly) | c'est (it's) | c'est (it's) | intéressant (interesting) animé (lively) tranquille (quiet) historique (historic) industriel (industrial) beau (beautiful) moche (ugly) | | |
| J'aime bien (I really like) | | | | J'aime (I like) | | | il y a (there is) | beaucoup à faire (lots to do) une plage (a beach) une piscine (a pool) un cinéma (a cinema) | et (and) mais (but) cependant (however) |
| Je n'aime pas (I don't like) | | | Je n'aime pas du tout (I don't like at all) | il n'y a (there is - negative) | | rien à faire (nothing to do) pas de plage (not a beach) pas de piscine (not a pool) pas de cinéma (not a cinema) | | aussi (also) | |
| Je déteste (I hate) | | | | | | | | | |

Year 7 Learning Cycle 2 Sentence Builder 1:

¿Quién es tu profesor favorito? – Who is your favourite teacher?

| Noun | Noun | Verb | Adjective | Connective | Indirect Object Pronoun | Verb |
|--|--|-----------------------|--|---|---|--|
| <p>Mi profesor de Mi profesora de = my teacher of</p> | <p>inglés = English matemáticas = maths ciencias = science geografía = geography historia = history religión = BVC español = Spanish francés = French deporte = PE dibujo = art música = music teatro = drama tecnología = technology informática = IT</p> | <p>es = is</p> | <div data-bbox="810 277 1147 639" data-label="Image"> </div> <p>sincer@ = sincere tímid@ = shy tranquil@ = calm divertid@ = fun gracios@ = funny seri@ = serious simpátic@ = kind tont@ = silly list@ = smart loc@ = crazy rar@ = weird interesante = interesting aburrid@ = boring simpático = kind antipático = unkind</p> | <p>y = and pero = but</p> | <p>me = (to) me te = (to) you le = (to) him/her nos = (to) us os (to) you les = (to) them</p> | <p>ayuda = helps apoya = supports grita = shouts da miedo = scares</p> |

Year 7 Learning Cycle 2 Sentence Builder 2:


¿Qué opinas de tus clases? – What is your opinion on your lessons?

| Verb | Noun | Connective | Verb | Modifier | Adjective |
|--|--|--|--|---|---|
| <p>Me encanta... = ... is loveable to me Me gusta... = ...is likeable to me</p> | <p>el inglés = English la geografía = geography la historia = history la religión = BVC el español = Spanish el francés = French el deporte = PE el dibujo = art la música = music el teatro = drama la tecnología = technology la informática = IT</p> | <p>porque =because</p> | <p>es = it is</p> | <p>demasiado = too tan = so muy = very bastante = quite un poco = a bit</p> | <p>divertid@ = fun interesante = interesting fascinante = fascinating guay = cool práctic@ = practical creativ@ = creative aburrid@ = boring tedios@ = tedious repetitiv@ = repetitive difícil = difficult fácil = easy</p> |
| <p>Me encantan... = ... are loveable to me Me gustan... = ...are likeable to me</p> | <p>las matemáticas = maths las ciencias = sciences</p> | | <p>son = they are</p> | | <p>divertid@s = fun interesantes = interesting fascinantes = fascinating guay = cool práctic@s = practical creativ@s = creative aburrid@s = boring tedios@s = tedious repetitiv@s = repetitive difíciles = difficult fáciles = easy</p> |



Year 7 Learning Cycle 2 Sentence Builder 3:

¿Qué haces en tus clases? – What do you do in your lessons?

| | Noun | Auxiliary Verb | Infinitive phrase | Time marker |
|--|--|---|---|---|
| <p>En mi clase de = In my ... class of</p> | <p>inglés = English matemáticas = maths ciencias = science geografía = geography historia = history religión = BVC español = Spanish francés = French deporte = PE dibujo = art música = music teatro = drama tecnología = technology informática = IT</p> | <p>Me encanta =... is loveable to me Me gusta = ...is likeable to me</p> | <p>escribir = to write escuchar al profesor = to listen to the teacher tocar un instrumento = to play an instrument hacer experimentos = to do experiments estar en una obra = to be in a play jugar a los deportes = to play at sports crear algo = to create something hablar = to talk usar los ordenadores = to use the computers ser activ@ = to be active trabajar en equipo = to work in team trabajar en silencio = to work in silence</p> | <p>siempre = always a menudo = often a veces = sometimes mucho = lots poco = little</p> |
| | | <p>puedo = I can/am able to debo = I must quiero = I want</p>  | | |

Year 7 Learning Cycle 2 Sentence Builder 4:

¿Qué vas a estudiar en el futuro? – What are you going to study in the future?

| Time Phrase | Auiliary Verb | Infintive | Noun | Connective | Verb | Adjective |
|---|-------------------------------------|--|---|----------------------|-----------------------|---|
| <p>en el futuro = in the future</p> | <p>voy a = I am going to</p> | <p>estudiar = to study hacer = to do</p> | <p>inglés = English matemáticas = maths ciencias = science geografía = geography historia = history religión = BVC español = Spanish francés = French deporte = PE dibujo = art música = music teatro = drama tecnología = technology informática = IT biología = biology química = chemistry física = physics cocina = cooking negocios = business studies</p> | <p>porque</p> | <p>(no) es</p> | <p>divertid@ = fun interesante = interesting aburrid@ = boring tedios@ = tedious repetitiv@ = repetitive exigente = demanding difícil = difficult fácil = easy útil = useful importante = important</p> |



Year 7 Learning Cycle 3 Sentence Builder 5:

¿Qué haces durante el recreo? – What do you do during break?

| Time phrase | Verb | Noun | Detail |
|--------------------------------------|--|---|---|
| Durante el recreo = During the break | charlo/ hablo = I chat/ I talk | | con mis amigos = with my friends con mi novio = with my boyfriend con mi novia = with my girlfriend |
| | como = I eat | comida rápida = fast food una comida sana = a healthy meal una bolsa de almuerzo = a packed lunch | |
| | bebo = I drink | un refresco = a fizzy drink | |
| | juego = I play | al fútbol = to the football a los deportes = (to the) sports | |
| | hago = I do | mis deberes = my homework ejercicio = exercise | |
| | estoy = I am (located) | en un castigo = in a detention | |
| | voy = I go | a la biblioteca = to the library al gimnasio = to the gym | |
| | voy a charlar/hablar = I am going to chat/talk | | |
| | voy a comer = I am going to eat | comida rápida = fast food una comida sana = a healthy meal una bolsa de almuerzo = a packed lunch | |
| | voy a beber = I am going to drink | un refresco = a fizzy drink | |
| | voy a jugar = I am going to play | al fútbol = to the football a los deportes = (to the) sports | |
| | voy a hacer = I am going to do | mis deberes = my homework ejercicio = exercise | |
| | voy a estar = I am going to be (located) | en un castigo = in a detention | |
| | voy a ir = I am going to go | a la biblioteca = to the library al gimnasio = to the gym | |

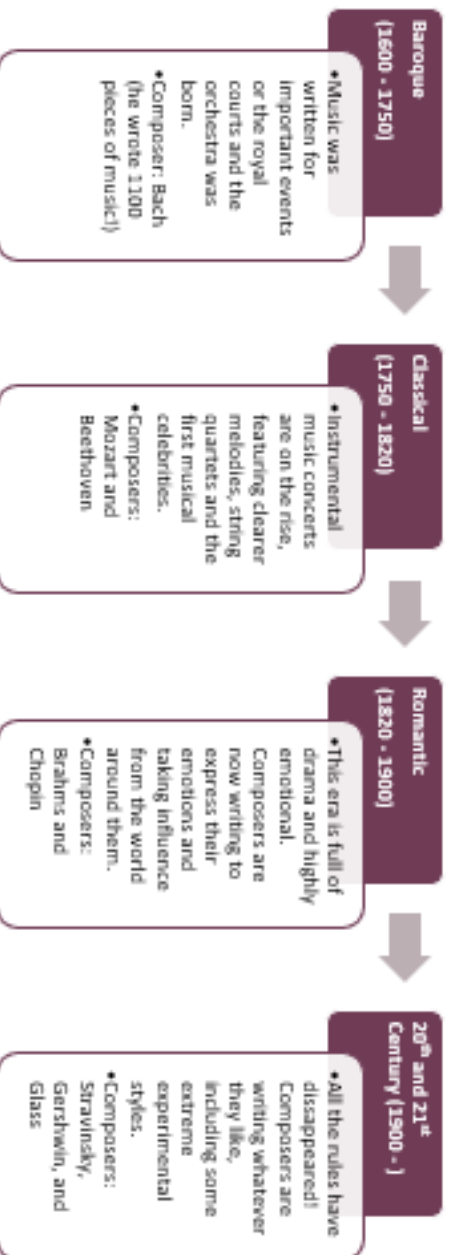


WESTERN ORCHESTRAL TRADITIONS

VOCABULARY

| | |
|-------------------------------|--|
| Orchestra | A group of instrumentalists (usually from the string, woodwind, brass and percussion instrument families) playing music together under the guidance of a conductor. |
| Conductor | The person responsible for directing a group of musicians. The conductor stands at the front of an orchestra and dictates musical elements such as tempo, dynamics and mood. |
| Woodwind Instruments | Traditionally wooden instruments, which produce sound by blowing on a wooden reed or blowing over a hole. |
| Brass Instruments | Instruments which produce sound by creating a buzzing sound with your lips. They are usually gold in colour. |
| Stringed Instruments | Instruments which use strings that are either plucked or bowed, to create sound. |
| Percussion Instruments | Any instrument which produces a sound by being hit, shaken or scraped. |
| Keyboard Instruments | Instruments which are played by pressing black and white keys, like piano keys. |

TIMELINE



INTRODUCTION TO COMPOSITION

VOCABULARY

| | |
|--------------------------|--|
| Triad | A chord made of three notes: the 1 st , 3 rd and 5 th . |
| Major | A triad with a brighter sound. |
| Minor | A triad with a darker sound. |
| Diminished | A triad with a dissonant sound. |
| Chord Progression | A pattern of chords played in a sequence. |





HOW TO BUILD A CHORD

If the notes in the scale are **F G A Bb C D E** then these are also the notes in the **1st** row (in that order). To find the **3rd** and **5th**, you simply count the notes starting from the **1st**.






For example: When G is the **1st** (in chord II), then A is the **2nd**, Bb is the **3rd**, C is the **4th** and D is the **5th**. Then choose a chord, and play the **1st**, **3rd** and **5th** of that chord simultaneously. E.g., F, A, C

| Chord: | I | II | III | IV | V | VI | VII |
|------------------------|---|----|-----|----|---|----|-----|
| 5 th | C | D | | | | | |
| 3 rd | A | Bb | C | | | | |
| 1 st (root) | F | G | A | Bb | C | D | E |

Try it for yourself! Complete this example A

| | | | |
|---|--|--|---|
| <h3>Mastery</h3> | <ul style="list-style-type: none"> I can explain a number of rules. I can make links between the strategies and tactics in different activities. I am able to apply how key words on the knowledge organiser relate to different activities. I am able to analyse performance to prioritise strengths and areas for development. I can communicate feedback and explain key coaching points. | <ul style="list-style-type: none"> I am hard working and consistently give 100% effort. I eagerly accept challenges and am a role model to others. I am able to bring out the best in others to increase success when working as a team. I demonstrate confidence and authority when officiating, leading and participating. | <ul style="list-style-type: none"> I can make links between skills and techniques which will enable me to be successful across a range of sports and activities. I can explain a problem to a team and communicate strategies to solve that problem. Demonstrates excellent fitness across all activities. |
| <h3>Secure</h3> | <ul style="list-style-type: none"> I can explain a number of rules. I can apply strategies and tactics in different activities. I am able to explain all key words on the knowledge organiser I am able to analyse performance and communicate strengths and areas for development. | <ul style="list-style-type: none"> I am consistently on task and putting in my best effort I am effective when working as a team and show respect to staff and equipment I can demonstrate confidence to lead a group successfully | <ul style="list-style-type: none"> I can apply appropriate skills and techniques to be successful within a competitive scenario I can identify a problem and suggest solutions for pre-determined and spontaneous situations. Demonstrates very good fitness across a range of activities. |
| <h3>Developing</h3> | <ul style="list-style-type: none"> I can describe a limited number of rules, strategies and tactics I am able to describe some key words on the knowledge organiser I am able to identify strengths and areas for development and communicate basic feedback | <ul style="list-style-type: none"> I am able to follow most instructions and am consistently on task I am respectful when working as a team, to staff and equipment I am developing my confidence and can demonstrate leadership qualities | <ul style="list-style-type: none"> I am Developing the ability to apply skills and techniques within a competitive scenario I can identify a problem and suggest solutions for pre-determined situations. I can Demonstrate good fitness across most activities. |
| <h3>Emerging</h3> | <ul style="list-style-type: none"> I can identify a limited number of rules, strategies and tactics. I am able to name some key words on the knowledge organiser I am able to identify strengths and areas for development. | <ul style="list-style-type: none"> I am able to follow simple instructions and am developing the ability to stay on task I am developing the ability to be respectful when working in a team I am developing my confidence and understand the qualities that make a good leader | <ul style="list-style-type: none"> The quality of technique is maintained for few skills and often deteriorates in challenging practises. Developing problem solving skills but this may be ineffective for both pre-determined and spontaneous situations. Fitness is a key area for development to become more effective within activities. |
| <p>KS3</p>  <p>Head Heart Hands</p> <p>Assessment</p> |  <p>Head</p> <p>Knowledge Understanding Feedback Analysis Rules Strategies and Tactics</p> |  <p>Heart</p> <p>Effort Teamwork Respect Leadership Resilience Confidence</p> |  <p>Hands</p> <p>Fitness Physical Ability Technique Competition Problem solving</p> |

Year 7 Cycle 2 – Immediate, Short- and Long-Term Effects of Exercise

| Week 1 and 2 Immediate Effects | Week 3 and 4 Short Term Effects | Week 5 and 6 Long Term Effects | Week 7 and 8 Physical health & well-being | Week 9 and 10 Mental (emotional) health & well-being | Week 11 and 12 Social health & well-being |
|---|---|---|---|---|--|
| <p>The immediate effects of exercise begin as soon as you start to exercise.</p> <p>Immediate effect 1 – Heart rate increases. Your heart begins to work harder as it needs to deliver oxygen to the working muscles.</p> <p>Immediate effect 2 – Temperature increases. As you begin to exercise you will begin to feel hotter.</p> <p>Immediate effect 3 – Your breathing rate increases deepens. This is because you need to get more oxygen to the working muscles.</p> <p>Immediate effect 4 – Sweating and red skin. These 2 things happen because it's how the body deals with temperature control.</p>  | <p>The short-term effects of exercise can occur any time between 24-36 hours after you finish exercising.</p> <ul style="list-style-type: none"> - Muscle cramps - Fatigue - Light headed - Nauseous - Muscle aches  <p>DOMS: if your exercise with high intensity. DOMS stands for Delayed onset Muscle Soreness.</p> <p>Some of the negative short-term effects – such as feeling fatigued, light headed and nauseous – are quite common until you establish a regular exercising routine. Once you have this routine they are likely to disappear.</p> | <p>Change 1 – Improved body shape. This can be in lower body weight or improved muscle tone.</p> <p>Change 2 – Improved components of fitness. Increase your strength, muscular endurance, flexibility and cardiovascular fitness.</p> <p>Change 3 – Your cardiovascular endurance will improve. This means you will be able to exercise for longer.</p> <p>Change 4 – Your muscles will increase in size and produce greater strength. When muscles are trained small tears are created. As these tears heal, they become thicker. This process is called hypertrophy.</p> <p>Change 5 – Your heart will increase in size. This is called cardiac hypertrophy. This will enable the heart to deliver more oxygen to the working muscles.</p> <p>Change 6 – Your resting heart rate will be lower. Bradycardia is the name given to a low resting heart rate. A resting heart rate below 60 BPM is bradycardic</p> | <p>To have good physical health & well-being means:</p> <ul style="list-style-type: none"> •All your body systems are working well •You are free from illness & injury •You are able to carry out every-day tasks  <p>Regular exercise can make improvements to your physical health & wellbeing in the following ways:</p> <ol style="list-style-type: none"> 1.Improves heart function –reduces chances of a heart attack. 2.Reduces the risk of some illness –reduces chances of heart disease & strokes. 3.Avoidance of obesity – reduces the chances of diabetes linked by being obese. | <p>The World health organisation (WHO) defines mental health & well-being as: a state of well-being where individuals:</p> <ol style="list-style-type: none"> 1.Realise their own potential 2.Cope with the stresses of life 3.Can work productively & fruitfully <p>The benefits of exercise to mental health & well-being are:</p> <ol style="list-style-type: none"> 1.Reduce stress/tension –help prevent illnesses such as depression. 2.Increase in serotonin –when release makes you feel good. 3.Greater ability to control emotions – increase confidence & self-esteem. | <p>Social health & well-being is when:</p> <ul style="list-style-type: none"> •Basic human needs are met (food, shelter & clothing) •Individuals have friendships, support & some value in society •Is socially active & has little stress in social circumstances.  <p>Regular exercise or joining a team or club is a great way to achieve the social benefits as:</p> <ul style="list-style-type: none"> •Meeting new friends or existing friends •Improves cooperation skills •Increases social activities therefore reducing engaging in anti-social behaviour.  |

My PE Targets

| | | | | | |
|-------------------|-----------------------------------|-----------------|-------------------|---------------|----------------|
| Cycle 1 | Knowledge Organiser score: | Emerging | Developing | Secure | Mastery |
| My Target: | | | | | |
| Cycle 2 | Knowledge Organiser score: | Emerging | Developing | Secure | Mastery |
| My Target: | | | | | |
| Cycle 3 | Knowledge Organiser score: | Emerging | Developing | Secure | Mastery |
| My Target | | | | | |

How to make a SMART target in PE

- Read the assessment band that you have been awarded
- Self-assess the most important area for you to develop out of Head, Heart and Hands
- Choose one bullet point from the band above that you are going to try and focus on in the next cycle



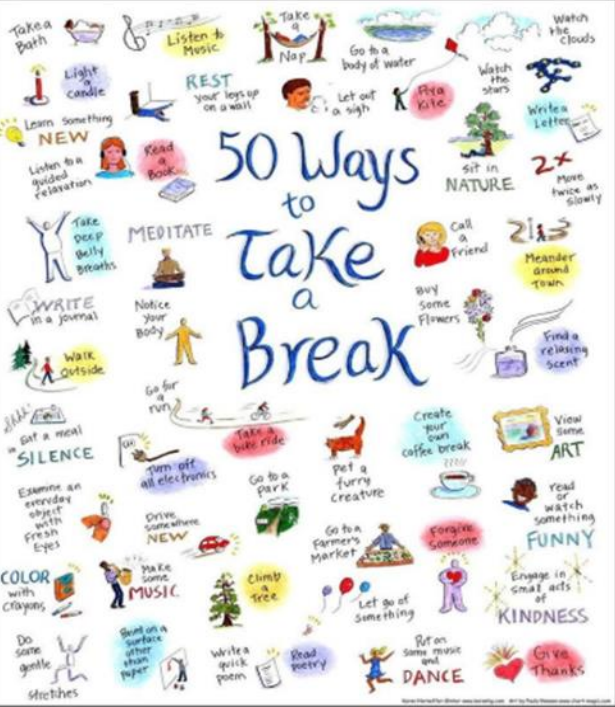



Examples of Targets

- This cycle I am going to try and work with different students in my group
- To demonstrate respect to others I am going to focus on listening when they are talking
- To show resilience even when practices get more challenging
- To improve my cardiovascular fitness by attending fitness suite club
- To improve my skill level by attending Badminton club



PSHE: How can I look after my well- being?

Key terms:

| | | |
|--|---|--|
| <p>Mental health</p>  | <p>Mental health is about how we think, feel, and cope with life. Everyone has mental health, just like we all have physical health. Our mental health can change from day to day, or over time, depending on what's happening in our lives.</p> | <p>Take a break: do something you enjoy Try to plan some activities that you enjoy and which will take your mind off things, whether that's texting or face-timing a friend, watching a film, reading a book or going for a walk.</p> |
| <p>Good mental health</p>  | <p>Having good emotional and mental health is when we are in control of our thoughts, feelings, and behaviour.</p> <p>We are able to cope with life's challenges and we mostly feel good about ourselves and have good relationships with others.</p> |  |
| <p>Mental</p>  | <p>Relating to the mind</p> | |
| <p>Physical</p>  | <p>Relating to the body as opposed to the mind.</p> | |
| <p>Emotions</p>  | <p>These are also called feelings. They can be affected by situations and our relationships with others</p> | |
| <p>Healthy coping strategy</p> | <p>Good things we can do to help us to manage our most intense, thoughts and emotions.</p> | |

Further support

At school:
Inclusion Team
PSHE teacher
Tutor
MHA
Safeguarding Lead Ms Ray



There are lots of places to get advice about emotional wellbeing, social media or to discuss feelings.

ChildLine:
www.childline.org.uk Phone: 0800 1111

Young Minds:
www.youngminds.org.uk

Samaritans:
www.samaritans.org Phone: 116 123

In a crisis, text 'Shout'



31





'10 a day' choices towards balancing our mental health



- 1 Talk about your feelings
- 2 Do something you enjoy and are good at
- 3 Keep yourself hydrated
- 4 Eat well
- 5 Keep active in mind and body
- 6 Take a break
- 7 Stay connected to those you care about
- 8 Ask for help
- 9 Be proud of your very being
- 10 Actively care for others

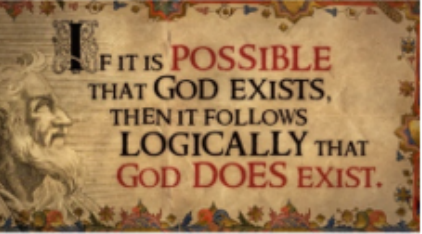
5 minute mental wellbeing actions

These are simple, free actions MHA can do daily.
Many take very little time or energy, and most can be done in less than five minutes.

- Breathe – take a few deep breaths
- Have a glass of water
- Have a healthy snack
- Do a 5 minute burst of exercise
- Connect with someone you care about – give them a hug, send them a message
- Take a moment to be still and present

| Week 1 | Week 2 | Week 3 | Week 4 |
|--|---|--|---|
| Lesson 1 – Does God Exist? | Lesson 2 – How Do We Prove Something? | Lesson 3 – Creation Myths | Lesson 4 – What Is The Design Argument? |
| <p>Key Terms:</p> <p>Theist: A person who believes in God</p> <p>Atheist: A person who disbelieves or lacks belief in the existence of God or gods.</p> <p>Agnostic: A person who is not sure if God exists or not.</p> | <p>Key Terms:</p> <p>Proof: Evidence or argument establishing a fact or the truth of a statement.</p>  | <p>Key Terms:</p> <p>Creation: The action or process of bringing something into existence.</p> <p>Creationism: The belief that God created the world.</p>  | <p>Key Terms:</p> <p>Design: A plan or drawing produced to show the look and function or workings of a building or other object before it is made.</p> <p>Teleological: The explanation of something in terms of the purpose it serves rather than of the cause by which it arises.</p> |
| <p>Content:</p> <p>There are different reasons that people give for either believing in God or not. For example, a theist may believe in God because they believe in the idea of the world being created by a powerful being. Yet, an atheist who does not believe in God may say that some creations are dangerous – for example, lightning.</p> | <p>Content:</p> <p>There are different ways of trying to prove something. Many people say that they need proof to believe in someone's existence – for example, to see that person or speak to them. The three main arguments that attempt to prove God's existence are the Cosmological argument, the Teleological argument and the Ontological argument.</p> | <p>Content:</p> <p>Many Jews and Christians believe in the concept of creationism: that God created the world according to the story in Genesis. For many Jews and Christians, the Creation story is one example of proof of how God exists.</p> | <p>Content:</p> <p>The Design Argument claims that the Universe is too ordered and complicated to have come about by random chance; therefore, it must have been designed. For example, trees take in carbon dioxide and give out oxygen. William Paley used the Design Argument to explain the existence of God. Things that are designed need a Designer – i.e. God!</p> |
| <p>Questions:</p> <ol style="list-style-type: none"> 1. What is a theist, atheist and agnostic? 2. What reasons might someone give for believing in God or not believing in Him? | <p>Questions:</p> <ol style="list-style-type: none"> 1. How do we prove something? 2. What different types of evidence have philosophers used to try to prove God exists? | <p>Questions:</p> <ol style="list-style-type: none"> 1. What is Creationism? 2. How might a Jew or Christian use the Genesis story of Creation as proof that God exists? | <p>Questions:</p> <ol style="list-style-type: none"> 1. What is the Design Argument? 2. How does William Paley use the Design Argument to prove the existence of God? |

| Week 5 | Week 6 | Week 7 | Week 8 |
|---|--|--|--|
| <p>Lesson 5 – Big Bang Theory & Evolution</p> <p>Key Terms: Big Bang Theory: How the universe expanded from an initial state of high density and temperature.</p> <p>Evolution: The process by which different kinds of living organism are believed to have developed from earlier forms during the history of the earth.</p> | <p>Lesson 6 – The Cosmological Argument</p> <p>Key Terms: Cause: A person or thing that acts or exists in such a way that some specific thing happens as a result.</p> <p>Effect: An event, condition, or state of affairs that is produced by a cause.</p> <p>Cosmological: Relating to the origin and development of the universe.</p> | <p>Lesson 7 – The Moral Argument</p> <p>Key Terms: Moral: Standards of behaviour; principles of right and wrong.</p> <p>Lawgiver: A person who draws up, introduces, or enacts a code of laws for a nation or people.</p>  | <p>Lesson 8 – The Problem of Evil</p> <p>Key Terms: Evil: Morally bad and cruel.</p> <p>Suffering: Undergoing pain, distress or hardship.</p>  |
| <p>Content: The Big Bang Theory was proposed in the 1920's by Alexander Friedman. There is still evidence today to support the Big Bang Theory as the Universe is still expanding and we can monitor for cosmic radiation. Charles Darwin proposed that species changed in order to survive (Evolution).</p> | <p>Content: Everything has a cause and a consequence. If this is the case, there must have been something that caused everything to happen. Thomas Aquinas used this idea to suggest that this First Cause is God which proves that God exists. A major problem with this theory is that we have no answer to the question, 'Who caused God?'</p> | <p>Content: Immanuel Kant formed the Moral Argument. He argued that humans have a sense of what is right and wrong. Kant's argument was that there must be someone who made these moral laws: a lawgiver. This lawgiver is God. Therefore, God exists.</p> | <p>Content: The Greek philosopher, Epicurus claimed that the existence of evil proves that there is no God. He claimed that if God cannot stop evil, then He is not all powerful. He then argued that if God can prevent evil, but does not, then God is not good. If God is all powerful and good, then evil would not exist. Evil does exist; therefore, God must not exist!</p> |
| <p>Questions:</p> <ol style="list-style-type: none"> 1. What is the Big Bang theory? 2. What evidence is there to support the Big Bang Theory? 3. What is Evolution? | <p>Questions:</p> <ol style="list-style-type: none"> 1. Does everything have a cause? 2. Does there have to be a First Cause? 3. Could this First Cause be God? | <p>Questions:</p> <ol style="list-style-type: none"> 1. What is the Moral Argument? 2. Where do we get our sense of right and wrong from? 3. Are there any problems with the Moral Argument? | <p>Questions:</p> <ol style="list-style-type: none"> 1. What is the problem of evil? 2. What is the inconsistent triad? 3. How is the problem of evil a criticism of the Moral Argument? |

| Week 9 | Week 10 | Week 11 | Week 12 |
|--|--|--|--|
| <p data-bbox="20 104 445 132">Lesson 9 – The Ontological Argument</p> <p data-bbox="20 144 161 168">Key Terms:</p> <p data-bbox="20 177 445 239">Ontology: The philosophical study of being.</p>  | <p data-bbox="499 104 913 132">Lesson 10 – Assessment Preparation</p> | <p data-bbox="975 104 1390 132">Lesson 11 – End of Cycle Assessment</p> | <p data-bbox="1452 104 1866 132">Lesson 12 – Assessment Repair Work</p> |
| <p data-bbox="20 529 130 554">Content:</p> <p data-bbox="20 562 457 911">The philosopher and theologian, Anselm formed the Ontological Argument, stating that the definition of God is ‘The greatest thing that can be thought of.’ It is not possible to think of anything greater than God. Something that exists is better than something that does not exist. Therefore, God exists!</p> | | | |
| <p data-bbox="20 931 157 955">Questions:</p> <ol data-bbox="70 963 430 1242" style="list-style-type: none"> <li data-bbox="70 963 430 1029">1. What is the Ontological Argument? <li data-bbox="70 1038 430 1139">2. How can the Ontological Argument prove the existence of God? <li data-bbox="70 1148 430 1242">3. What problems are there with the Ontological Argument? | | | |

MOOD LIGHT

INPUTS

Below are circuit symbols for some input components used in electronic circuits.



| | | | |
|--|----------------------------------|--------------------------------|------------|
| Single pole Single throw (SPST) Toggle or slide switch | Push to make (PTM) Normally open | Light dependent resistor (LDR) | Thermistor |
|--|----------------------------------|--------------------------------|------------|



OUTPUTS

Output components are then used to change the electrical energy into light, sound, heat and movement.

| | | | |
|----------------------------|------|--------|---------|
| Light emitting diode (LED) | Lamp | Buzzer | Speaker |
|----------------------------|------|--------|---------|



EQUIPMENT

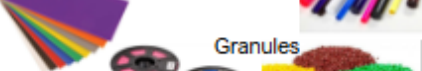
Soldering wire Soldering Iron



Wire Strippers Wire Snips

STOCK FORMS

Sheets Rods



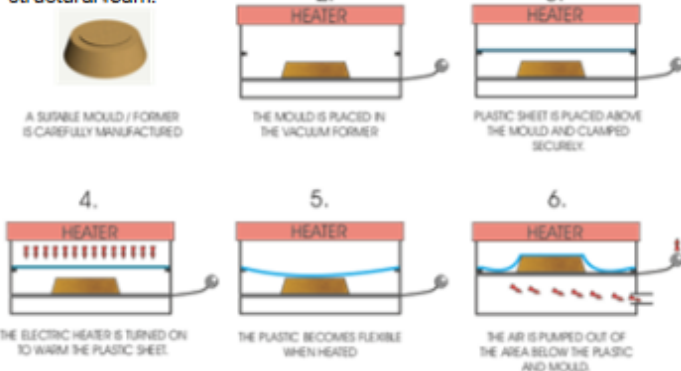
Granules Filament

VACUUM FORMING

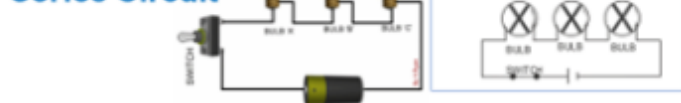
A manufacturing method used to shape plastic materials. During the vacuum forming process, a sheet of plastic is heated and then pulled around a single mold using suction.

Used for car parts, packaging, dental aligners, household products, storage containers, toys etc.

Moulds can be made using 3D printing, clay, wood, aluminium and structural foam.



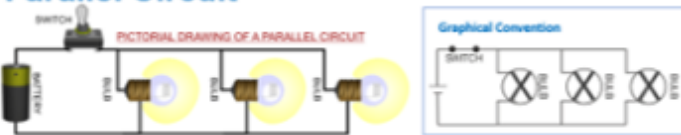
Series Circuit



The circuit above shows three bulbs placed in series. This is called a series circuit. The current flows through each of the bulbs in sequence. The more bulbs that are added, the less bright they shine. This is due to the resistance in each bulb.

Disadvantage:
If any of the bulbs fail, current cannot flow through the circuit and the other components will not work.

Parallel Circuit



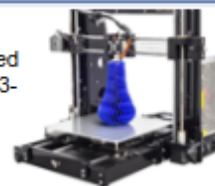
The circuit above shows three bulbs placed in parallel. This is a parallel circuit. Then current can flow through each of the bulbs, without first having to flow through any others.
Advantage:
If any of the bulbs fail, the others will still work as current can still flow through the rest of the circuit.

| KEYWORD | DEFINITION |
|--------------------------------|--|
| Components | Term for any part of an electric circuit. |
| Schematic Symbols | Diagrams used by to show how a circuits components are connected together |
| Circuit | Path for transmitting electric current |
| Input | Initiates an electrical current to activate a circuit. |
| Output | An action produced as a result of an electrical current. |
| Soldering | a process in which two or more items are joined by melting and putting a filler metal (solder) into the joint |
| Tinning | a process of using a soldering iron to melt solder around a stranded electrical wire |
| Thermoforming Plastic | A polymer than becomes pliable when heated, then solidifies upon cooling |
| Thermosetting Plastic | a permanent setting polymer which hardens and sets during moulding process and cannot be softened again through heating. |
| C.A.M | Computer Aided Manufacturing |
| Polylactic acid (PLA) | a thermoplastic made from renewable resources such as corn starch, tapioca roots or sugar cane, used in 3D printing. |
| High Impact Polystyrene (HIPs) | Available in sheets for vacuum forming, yogurt containers, plastic cutlery, medical industry trays etc. |

3D PRINTING

A process, whereby a 3D computer aided design (CAD) is used to manufacture a 3-dimension form.

How does it work?
A filament is heated and extruded, laid down, layer by layer, to form a three-dimensional object



When is it used?
Tools, textiles, toys, jewellery and component. For example, it is often used in the medical world to produce custom prosthetic limbs and hearing aids.

The future?
Research has been taking place for several years on 'bioprinters'. These are complex 3D printers, capable of printing bio-structures, used in surgery.

FIBRES

Natural fibres

Plant based

•cotton - harvested from cotton plants from China, USA and Pakistan, the fibres are cleaned, carded between wire brushes to lie in the same direction and spun into yarn

•bamboo - grown in China and Japan and is pulped and crushed, softened and carded before being spun into yarn

•linen - made from the flax plant grown in Canada, France and Russia, and processed in the same way as bamboo
Animal based

•wool - fleeces are sheared from animals such as sheep, alpaca and goats in UK, Australia and New Zealand; the short, staple fibres are cleaned, carded and spun into a yarn

•silk - silk moth cocoons are harvested in China and India, heated to undo the filament bonds and then spun into a filament fibre

Synthetic fibres

Oil based

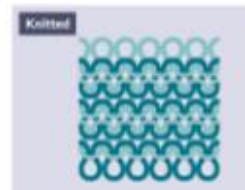
•polyester - polymer chains are extracted from oil and are then forced through a small hole into a filament fibre

TEXTILES

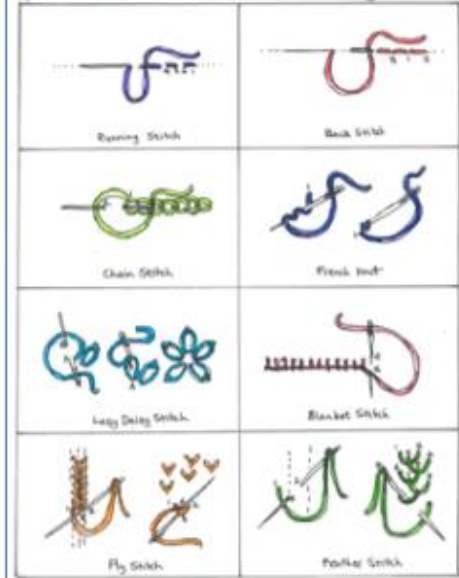
| KEYWORD | DEFINITION |
|-----------------|--|
| Textiles | A type of cloth or woven fabric. |
| Fibres | Natural or synthetic structures that can be spun into yarn and woven, knitted, or bonded into fabric |
| Natural Fibre | Fibres product from bio-material such as plants or animals. |
| Synthetic Fibre | man-made textile fibre produced entirely from chemical substances |
| Yarn | A Spun thread used for knitting, weaving, or sewing. |

FABRIC STRUCTURES

Different fabric structures are produced by weaving or knitting yarns which interlock together. The structure of the fabric will alter the fabrics strength, ability to stretch, appearance and comfort.



Some Stitches to try



Knowledge Organiser

5 reasons for eating 5 a day

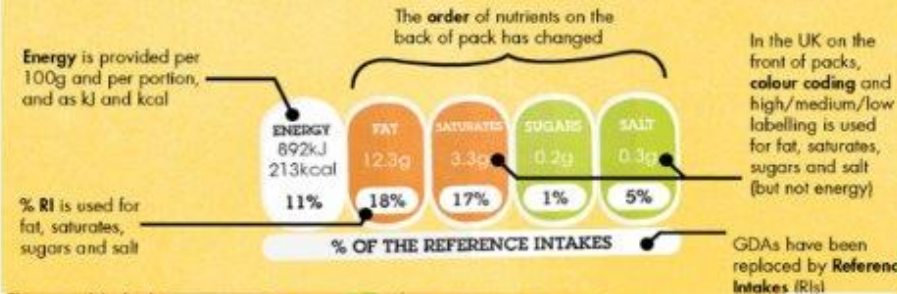
1. Fruit and vegetables are a good source of vitamins and minerals, including folate, vitamin C and potassium.
2. They're an excellent source of dietary fibre, which can help to maintain a healthy gut and prevent constipation and other digestion problems. A diet high in fibre can also reduce your risk of bowel cancer.
3. They can help to reduce your risk of heart disease, stroke and some types of cancer.
4. Fruit and vegetables contribute to a healthy, balanced diet.
5. Fruit and vegetables taste delicious and there's so much variety to choose from.

Fruit and vegetables are also usually low in fat and calories (provided you don't fry them or roast them in lots of oil). That's why eating them can help you maintain a healthy weight and keep your heart healthy.

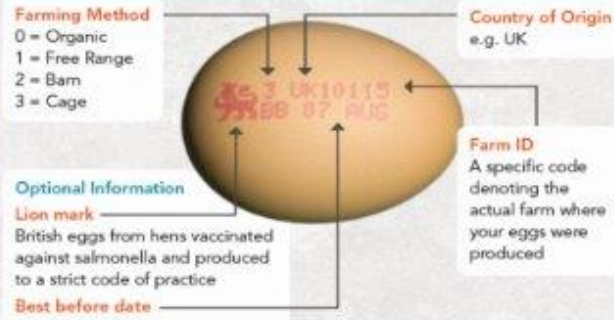
NUTRITION LABELLING

Nutritional information on the label can help you make healthier eating choices. Since 2014 there have been new European regulations on food labeling, controlling all the information on food labels from nutrition labelling and the ingredients list, to the size of the writing used.

What do nutrition labels on food include now?



EGG PRINTING EXPLAINED



Vegetables are available in many varieties and can be classified into biological groups or 'families', including:

- Leafy green - lettuce, spinach and kale
- Cruciferous - cabbage, cauliflower, Brussels sprouts and broccoli
- Marrow - pumpkin, cucumber and courgette
- Root - potato, sweet potato and carrot
- Edible plant stem - celery and asparagus
- Allium - onion, garlic and shallot.



Farm assured means that the farms have met robust standards of food safety and hygiene animal health and welfare. The tractor logo is a sign of farm assurance and products can be tracked back to the farms they came from.

Fruit is the sweet, fleshy, edible part of a plant. It generally contains seeds. Common types of fruits include:

- Apples and pears
- Citrus - oranges, grapefruits, mandarins and limes
- Stone fruit - nectarines, apricots, peach es and plums
- Tropical and exotic - bananas and mangoes
- Berries - strawberries, raspberries, blueberries, kiwifruit and passionfruit
- Melons - watermelons, rockmelons and honeydew melons

eatwell

- 1 Base your meals on starchy foods
- 2 Eat lots of fruit and veg
- 3 Eat more fish - including a portion of oily fish each week
- 4 Cut down on saturated fat and sugar
- 5 Eat less salt - no more than 6g a day for adults
- 6 Get active and try to be a healthy weight
- 7 Drink plenty of water
- 8 Don't skip breakfast

The Food Standards Agency's **8 tips for eating well**

Fairtrade

Fairtrade changes the way trade works through better prices, decent working conditions and a fairer deal for farmers and workers in developing and **lower economically developed countries (LEDC)**. This enables them to have more control over their lives and decide how to invest in their future, and maintain their livelihood.

There is a wide range of food products that are certified as being Fairtrade such as coffee, cocoa, bananas, rice and sugar. By choosing Fairtrade products the purchaser makes a decision to try and support not only farmers and their families, but also the communities that they live in. The premium attached to Fairtrade products means that the additional money raised from products can be invested, by the farmers themselves, into community development such as schools, health care, transport and sanitation.



▲ Fairtrade bananas

Seasonal food

When we visit the supermarket we often take for granted the range of products available to us. However, we don't often stop to think about where the foods come from and whether or not they are in season. Seasonal food means the foods that are available at different times of the year in the UK, according to their growing season. When considering seasonal foods we most often think of fruits and vegetables, although meat and fish also have seasons.

There are a number of benefits to eating more local, seasonal food:

- To reduce the energy needed to grow and transport the food we eat, which also reduces carbon emissions.
- To avoid paying more for food that has had to travel further.
- To support the local economy.
- Seasonal food is fresher and so tends to be tastier and more nutritious.

Sensory descriptors

When analysing food products we use a range of vocabulary to describe each of the sensory qualities. Often these descriptors can be used to describe more than one of the food's attributes. This is because the senses are closely linked.



▲ Appearance and colour



▲ Taste and texture



▲ Smell or aroma



▲ Sound

Below are some examples of sensory descriptors.

| Taste | Texture | Aroma | Appearance | Sound |
|--------|---------|---------|------------|----------|
| Spicy | Moist | Sweet | Colourful | Crunchy |
| Bland | Soft | Yeasty | Dull | Sizzling |
| Sour | Juicy | Spicy | Shiny | Bubbling |
| Sweet | Crunchy | Citrus | Smooth | Popping |
| Salty | Chewy | Savoury | Rough | Fizzy |
| Fruity | Crisp | Buttery | Uniform | |
| Bitter | Smooth | Cheesy | Size | |



Source: Public Health England in association with the Welsh government, Food Directorate Scotland and the Food Standards Agency in Northern Ireland

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Natural Timbers – Hardwoods:

Hardwoods come from deciduous (broad leaf) trees and are usually slow growing which tends to make them more expensive. Hardwoods usually have a broad leaf shape. They can be harder to work with but are typically more durable.

- Hardwoods are deciduous which means they lose their leaves.
- You can distinguish hardwoods by the structure of the wood grain as it is much closer together than softwoods.
- Hardwood is much more expensive than softwood because they take longer to grow.
- Examples include oak, teak, mahogany and beech.



Natural Timbers – Softwoods:

Softwoods come from coniferous trees which have needles instead of leaves. Softwoods grow faster than hardwoods so are cheaper and easier to work with because they are often softer than hardwoods, but this isn't always the case.

- Evergreen coniferous trees do not lose their leaves.
- Softwoods are often used in the construction industry.
- Softwood trees grow long and straight so giving long planks of wood.
- Examples include pine, spruce, larch and fir.



Manmade boards:

Manmade boards are commonly used in the construction industry, for interior fittings and furniture. They are more stable than natural woods and are less likely to warp and twist out of shape. They are nearly always 2.4m x 1.2m in size. Manmade boards such as plywood.

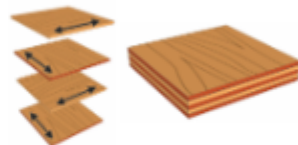
Three main types of manmade boards are:

- Plywood
- Particle boards e.g. chipboard
- Fibre boards e.g. MDF

These are all manmade in factories and are usually composed of natural woods and resin which binds them together. They can also be constructed so that they are extremely wide, making plywood a popular material in the construction industry.

We are mostly using plywood to make your sweet dispensers from, but there are many different types available:

- Soft wood ply tends to be used in the construction industry for walls, roofs and floors
- Hardwood ply often used for quality laminate flooring, kitchen units and some furniture
- Marine plywood is used in boat hull construction as it is specially treated so that it is water resistant



Knowledge Organiser for Yr7 Sweet Dispenser Project – TOOLS, EQUIPMENT & MATERIALS



Power fretsaw



Plywood



Tenon saw



Glass paper & sanding block



Steel rule



Cordless drill



Bench vice



Clamp



Try square



Pillar drill



Belt sander



Tung oil



PVA glue

Geography Answer Sheet

Geography HL Complete the questions from the knowledge organiser here:

| | | | |
|---|---|---|---|
| Lesson 1 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 2 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 3 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 4 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ |
|---|---|---|---|

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| Lesson 5 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 6 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 7 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 8 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ |
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| Lesson 9 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 10 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 11 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 12 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ |
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| Lesson 13 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 14 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 15 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ | Lesson 16 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ |
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