Beckfoot Upper Heaton

Knowledge Organisers

Year 7 – Half Term 6

Contents:

How to use a knowledge organiser – step by step guide

	Look, Cover, Write, Check	Definitions of Key Words	Flash Cards	Self Quizzing	Mind Maps	Paired Retrieval
Step 1	Look at and study a specific area of your KO. 	Write down the key words and definitions. 	Use your KO to condense and write down key facts or information onto flash cards. 	Use your KO to create a mini quiz. Write down your questions using your KO. 	Create a mind map with all the information you can remember from your KO. 	Ask a friend or family member to have the KO or flash cards in their hands. 
Step 2	Cover or flip the KO over and write down everything you can remember. 	Try not to use your KO to help you. 	Add pictures to help support. Then self-quiz using the flash cards. You could write questions on one side, and answers on the other! 	Answer the questions and remember to use full sentences. 	Check your KO to see if there are any mistakes on your mind map. 	They can test you by asking you questions on different sections of your KO. 
Step 3	Check what you have written down. Correct any mistakes in green pen and add anything you have missed. Repeat. 	Use your green pen to check your work. 	Ask a friend or family member to quiz you on the knowledge. 	Ask a friend or family member to quiz you using the questions. 	Try to make connections, linking the information together. 	Write down your answers, 

Perspective: how someone views the world.

Non-Fiction Subject Terminology

Terminology	Definition
PAFT	Purpose, audience, form and tone
Purpose	What a text trying to do. Is it informative, advisory or persuasive
Audience	Who a text is aimed at
Format	The type of text (eg: letter, speech, report etc)
Hyperbole	Use of exaggerated terms for emphasis.
Anecdote	A short story often from one's own experience
Directives	Using you, we or us.
Facts/Statistics	Facts and figures
Modal Verb	A word that provides an option -Should, Could, Might
Rhetorical Question	Asking a question as a way of asserting something. Asking a question, which already has the answer hidden in it.
Repetition	Where words or phrases are used more than once in a piece of writing.

Word Classes

Noun	The name of a person, place, thing, or idea (abstract noun).
Adjective	Describes the characteristics of a noun.
Adverb	Adds extra information to a verb or noun, like, how, where or when it is occurring.
Verb	a feeling of unfair dislike directed against an individual or a group

Key Vocabulary

Matriarchy	a system of society or government ruled by a woman or women.
Patriarchy	a system of society or government ruled by a man or men.
Feminism	Supporting ideas and systems which promote equal rights for men and women.
Prejudice	a feeling of unfair dislike directed against an individual or a group

PRIMARY SOURCES	SECONDARY SOURCES
• Letter • Diary • Interview • Autobiography (a book written about someone's life by that person) • Speeches • Photograph/ video	• Newspaper article • Internet search • Textbooks • Biography (a book written about someone's life by someone else)

Key People:

Queen Victoria: Queen of the United Kingdom of Great Britain and Ireland from 1837 until her death in 1901.

Florence Nightingale: British nurse and social campaigner who was the creator of most modern nursing practices.

Mary Seacole: a British-Jamaican nurse, healer and businesswoman.

Emmeline Pankhurst: a British political activist, best remembered for organizing the UK suffragette movement and helping women win the right to vote.

Pandita Ramabai: a women's rights & education activist.

Travel Writing

Year 7 Half Term 6:

What is travel writing?

Travel writing is <u>non-fiction</u> (real life) writing that describes travelling and visiting different parts of the world.

Where would you find travel writing?

Travel writing can take the form of **newspaper/magazine articles**, **blogs**, **journals**, **tourist guides** or even **whole books**.

What does good travel writing look like?

1. Personal account
2. Anecdotal
3. A hook – put questions in the reader's mind
4. Strong Narrative thread
5. Quotations
6. Avoid clichés
7. Be natural
8. Interesting nuggets
9. Economical
10. Pertinent
11. Cinematic – evocative
12. Off-the-beaten-track
13. Detail, detail, detail
14. Show, not tell
15. Emotive (Awe is an emotion)
16. Plausible

Key Concept	Definition
Anecdote	A short, amusing story about a real incident or person.
Expanded noun phrases	A phrase made up of a noun and at least one adjective.
Connectives	A word or phrase that links two parts of a sentence together. Can also be used as a sentence opener to connect two parts of a text.
Main clauses	Part of a sentence that can stand on its own, like a full sentence.
Subordinate clauses	Part of a sentence that cannot stand on its own but adds extra information. Must be separated by commas.
Narrative	Story. Even non-fiction writing needs a **narrative thread** (a story that connects things together).
Sub-narrative	A section of narrative that runs alongside the main **narrative thread** like a less important story.
Quotation	Words taken from another person or text and copied into your work. Must be separated by **"quotation marks."**
Personal pronouns	I, you, he, she, it, we, they, me, him, her, us, and them
Pertinent information	Information that is necessary.
Paragraphing	A section of a text on a certain topic. Miss a line before and after a paragraph.
Topic sentence	A sentence at the start of a paragraph that tells the reader what the paragraph is about.
Rhetorical devices	Techniques used to persuade (AFORREST).
Show, not tell	Describing only action when writing instead of telling us thoughts and feelings.
In media res	Starting in the middle of the action

Connectives

after	unless
although	until
as	when
because	whenever
before	whereas
for	wherever
however	which
if	while
in case	whilst
since	who
that	whoever
though	whose
till	

A	Alliteration
F	Facts
O	Opinion
R	Rhetorical question, repetition
E	Exaggeration (hyperbole), emotive language
S	Statistics
T	Triple (list of three)

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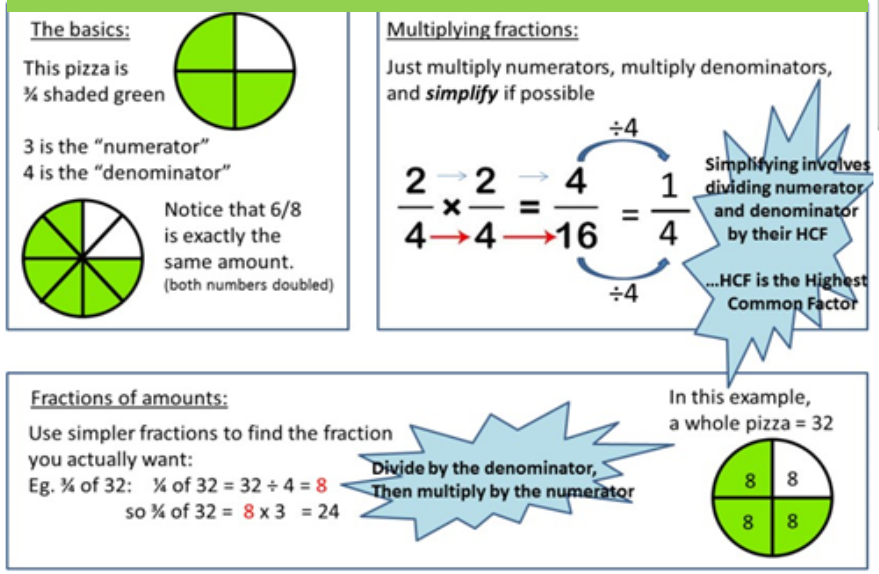
Places in the UK	Places around the world
Countries: England, Scotland, Wales, Northern Ireland **Cities**: London, Leeds, Manchester, Edinburgh, Cardiff, Belfast	**Europe:** France, Spain, Portugal, Italy, Germany, Poland, Slovakia **Worldwide:** America, China, Russia, Egypt, Japan, Australia, South Africa, Pakistan

UNIT 4F – FRACTIONS AND PERCENTAGES

PERCENTAGES – Videos 86/87/89/97/94

1	Find simple percentages of amounts	1% - Divide by 100 10% - Divide by 10 50% - Divide by 2 25% - Divide by 4
2	Use a multiplier to find a percentage	30% = multiply by 0.3 3% = multiply by 0.03
3	Find percentage change	$\frac{Changed\ by}{Original\ amount} \times 100$
4	Use a multiplier to find percentage increase/decrease (calculator)	Increase 30 by 15% 30 x 1.15 = 34.5 Decrease 50 by 10% 50 x 0.9 = 45
5	Calculate compound interest	$A = P(1+i)^n$

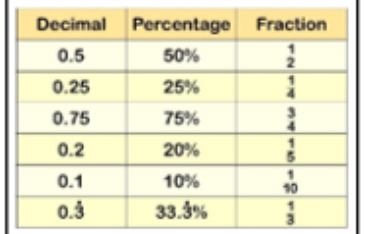
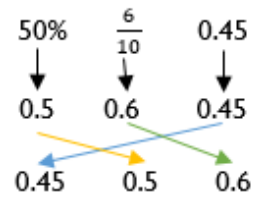
FRACTIONS – Videos 77/68/69



OPERATION WITH FRACTIONS – Videos 66/72/68/69/70

1	Equivalent Fractions	$\frac{1}{2}$ is the same as $\frac{4}{8}$
2	Adding Fractions • The denominator has to be the same. • Add the numerator.	$\frac{1}{2} + \frac{3}{4}$ we can make the bottom 4 $\frac{2}{4} + \frac{3}{4} = \frac{5}{4}$
3	Subtracting Fractions • The denominator has to be the same. • Subtract the numerator.	$\frac{3}{4} - \frac{1}{3}$ We can make the bottom 12. $\frac{9}{12} - \frac{4}{12} = \frac{5}{12}$
4	Multiplying Fractions • Multiply both top and bottom	$\frac{3}{5} \times \frac{2}{3} = \frac{6}{15}$ $\frac{6}{15}$ is the same as $\frac{2}{5}$
5	Dividing Fractions • KCF • Keep – Change - Flip	$\frac{4}{3} \div \frac{2}{5}$ becomes $\frac{4}{3} \times \frac{5}{2}$ $\frac{4}{3} \times \frac{5}{2} = \frac{20}{6} = \frac{10}{3}$

FRACTIONS,DECIMALS & PERCENTAGES – Videos 59/149

1	Equivalent fractions, decimals and percentages.	
2	Ordering FDP • Convert them all into the same form and then compare	

Vocabulary

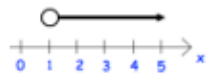
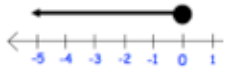
1	Numerator	Top of a fraction
2	Denominator	Bottom of a fraction
3	Multiplier	A number when multiplied finds the percentage of an amount

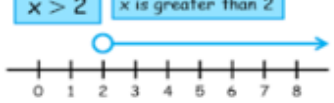
UNIT 5F – EQUATIONS, INEQUALITIES AND SEQUENCES

EQUATIONS- Videos 217

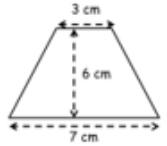
1	Solving one-step and two-step equations	Using **inverse (opposite) operations** to find out a missing number. Example 1: $x + 6 = 11$ (subtract 6) $x = 5$ Example 2; $3x - 2 = 10$ (add 2) $3x = 12$ (divide by 3) $x = 4$

INEQUALITIES- Videos 266/267/268

1	Greater than (>) Less than (<)	Greater than or equal to (≥) Less than or equal to (≤)
2	Representing inequalities on a number line	$x > 1$  $x \leq 0$ 

Inequalities on a number line	An open circle means that the value is not included: $x > 2$ x is greater than 2  A filled in circle means that the value is included: $x \geq 3$ x is greater than or equal to 2 

USING FORMULAE- Videos 287

1	Substitute numbers into a formula	Eg. Substitute numbers into the formula for the area of a trapezium:  $\frac{(a+b)h}{2} = \frac{(3+7)\times 6}{2}$ $= 30$
2	Rearranging formula	Make a the subject of the formula $b = 5a + 21$ $-21 \quad -21$ $b - 21 = 5a$ $\div 5 \quad \div 5$ $\frac{b-21}{5} = a$

SOLVING INEQUALITIES- Videos 269/270/271/272

1. Solve inequalities

$-3 \leq 2x - 1 \leq 5$

$+1 \quad +1 \quad +1$

$-2 \leq 2x \leq 6$

$\frac{-2}{2} \leq \frac{2x}{2} \leq \frac{6}{2}$

$-1 \leq x \leq 3$

2. Find all the integer solutions which satisfy this inequality:

$-1 \leq x \leq 3$

-1. 0, 1, 2 , 3

3. Solve with unknown both sides

$4m - 3 < 2m + 6$

$-2m \quad -2m$

$2m - 3 < \quad + 6$

$+3 \quad +3$

$2m < 9$

$\frac{2m}{2} < \frac{9}{2}$

$m < \frac{9}{2}$

Vocabulary

1	Equation	is an expression equaling another. Eg) 3b + 2 = 2d
2	Substitution	Replace letters with numbers.
3	Formulae	Show the relationship between two or more variables
4	Inverse	The reverse of something else.

Beckfoot Upper Heaton

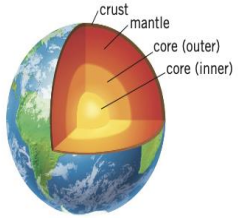
Y7 Science HT6 - Knowledge Organiser

Half term 6

Part 1 – Earth

Key content:

The Earth

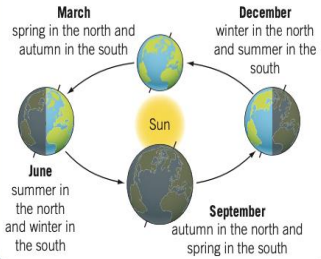


The Earth has three main layers:

- The **crust** is rocky and solid
- The **mantle** is made from mainly solid rock but this can flow
- The **outer core** is liquid metal and the **inner core** is solid

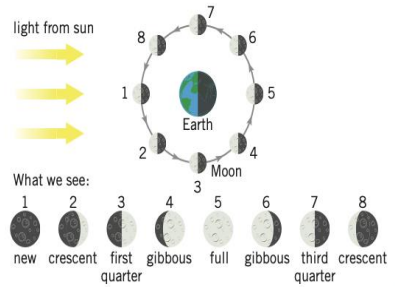
The spinning Earth

- The Earth takes 365 days to **orbit** the Sun, this is one Earth **year**
- The Earth takes 24 hours to spin on it's axis, that is why we have day and night
- The Earth's **axis** has a tilt of 23.4° which gives rise to our **seasons**



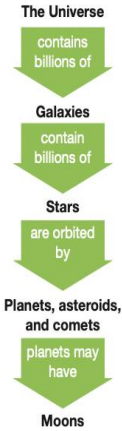
The Moon

- The Moon is a **natural satellite** which orbits the Earth
- One orbit of the Earth takes 27 days and 7 hours, this causes us to see the **phases of the moon**
- The different phases of the moon are caused by different parts of the Moon being lit by the Sun



The night sky

- A **galaxy** is a collection of **stars**, our galaxy is known as the **Milky Way**
- **Stars** produce their own light
- **Planets** are large objects which do not produce their own light but orbit stars
- **Natural satellites** include moons which can orbit planets
- **Artificial satellites**, such as the International Space Station, are man made structures which can orbit planets



Types of rock

Type of rock	How it is formed	Properties	Uses
sedimentary rock	• sediment piles up in one place and, over many years, sticks together by compaction or cementation • **compaction:** weight of sediments above squeeze them into rocks • **cementation:** another substance sticks the sediments together	• **porous:** made of small grains stuck together so there are holes that water can pass through • soft: easy to break apart the sediments	building materials (e.g. *sandstone* and *limestone*)
igneous rock	• when liquid rock cools it turns into igneous rocks these are made of crystals locked tightly together • **magma:** liquid rock underground-cools slowly and forms large crystal • **lava:** liquid rock above the ground-cools quickly and forms small crystals	• **durable** and hard (difficult to damage): the crystals are locked tightly together • not porous: there is no space between crystals	pavement rail tracks
metamorphic rock	• other rocks under that Earth are heated and put under pressure • over time, these rocks become metamorphic	• not porous: there is no space between crystals	marble used for kitchens slate used for roofing tiles

The Solar system

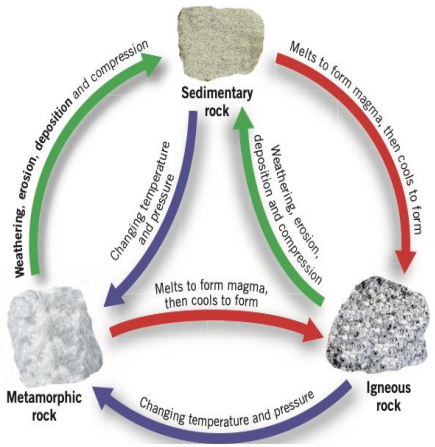
Our **solar system** consists of eight planets which orbit the Sun, four inner and four outer planets

Inner planets	Outer planets
Small and rocky planets ***(dwarf planets)***	*Gas giants*
Mercury, Venus, Earth, Mars	Jupiter, Saturn, Uranus, Neptune

- Between the inner and outer planets, between Mars and Jupiter, there is the **asteroid belt**
- The planets all orbit the Sun , but the path of their orbits are all slightly different, giving them the look of 'wandering' in the sky

The rock cycle

The **rock cycle** shows how rocks change and how their materials are recycled over millions of years



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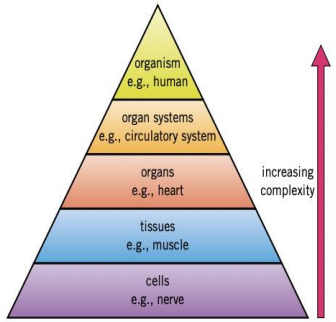
Key words:

Key term	Definition
artificial satellite	A manmade spacecraft.
asteroid	Lumps of rock orbiting the Sun left over from when the Solar System formed.
ceramic	A compound such as a metal silicate or oxide that is hard, strong, and has a high melting point.
constellation	A collection of stars that make a pattern in the sky.
day	The time it takes a planet to make one full spin on its axis.
deposition	The settling of sediments that have moved away from their original rock.
durable	A property of a material meaning it is difficult to damage.
erosion	The breaking of a rock into sediments and their movement away from the original rock.
galaxy	Collection of stars held together by gravity. Our galaxy is called the Milky Way.
geocentric model	A model of the Solar System with the Earth at the centre.
heliocentric model	A model of the Solar System with the Sun at the centre.
igneous rock	Formed when liquid rock (lava or magma) cools or freezes. Their minerals are arranged in crystals. Examples are granite, basalt, and obsidian.
lava	Liquid rock that is above the Earth's surface.
light year	The distance light travels in a year (over 9 million, million kilometres).
magma	Liquid rock below the Earth's surface.
metamorphic rock	Formed from existing rocks exposed to heat and/or pressure over a long time. Examples are marble, slate, and schist.
Milky Way	Galaxy containing our Sun, Solar System, and billions of other stars and planets.
mineral	Chemicals that rocks are made from.
Moon	A rocky body orbiting the Earth, it is Earth's only natural satellite.
natural satellite	A moon in orbit around a planet.
night	The period on one section of the Earth, or other planet, when it is facing away from the Sun.
obsidian	An example of an igneous rock.
orbit	Path taken by one object moving around another larger object, such as a satellite around the Earth. Earth completes one orbit of the Sun every year.
phases of the Moon	Shape of the Moon as we see it from Earth because it reflects light from the Sun.
planet	Any large body that orbits a star in a Solar System.
porous	A porous material has small gaps that may contain substances in their liquid or gas states. Water can soak into a porous material.
rock cycle	Sequence of processes where rocks change from one type to another, over a timescale of millions of years.
season	Changes in temperature during the year as the Earth moves around its orbit.
sediment	Pieces of rock that have broken away from their original rock.
sedimentary rock	Formed from layers of sediment, which can contain fossils. Examples are chalk, limestone, and sandstone.
Solar System	The Sun and the planets and other bodies in orbit around it.
star	Bodies that give out light and that may have a Solar System of planets.
strata	Layers of sedimentary rock.
Sun	The star at the centre of our Solar System.
transport	Movement of sediments far from their original rock.
uplift	Uplift happens when huge forces from inside the Earth push rocks upwards.
weathering	The breaking down of rock into smaller pieces by physical, chemical or biological processes.

Part 1 – Organisms

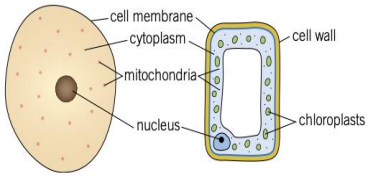
Key content:

Levels of organisation



Plant and animal cells

- To be able to **observe** a **cell** we need to use a **microscope**, this magnifies the cell to a point to which we can see it
- Plant and animal cells have small structures inside known as **organelles**, each of these performs a certain role which allows the cell to survive

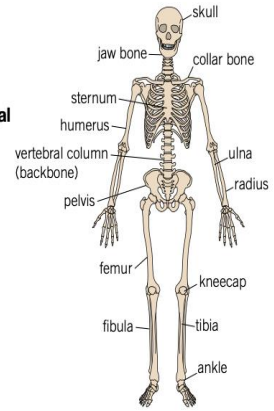


Specialised cells

- **Specialised cells** are designed to carry out a particular function, because of this they have specific features and adaptations to allow them to carry this out
- Both plant and animal cells can be specialised, with these specialised cells working together to help the organism to survive

The skeleton

- The **skeleton** is made up of 206 **bones** which are a type of **tissue**
- Bones have a blood supply and are a living tissue
- The skeleton is part of the **muscular-skeletal system**
- The four main functions of the skeleton are:
  - To support the body – to keep you upright and hold **organs** in place
  - Protect organs – such as the skull protecting the brain
  - Movement – by working with muscles to allow you to move
  - Making blood cells – the **bone marrow** produces red and white blood cells



Muscles

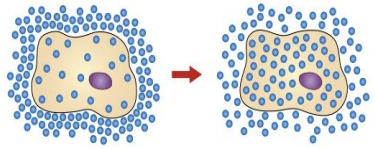
- **Muscles** are a type of tissue which allows movement
- They pull on tendons which in turn pull on bones to allow movement
- Muscles like the triceps and biceps are known as **antagonistic muscle pairs**, they work together –as one contracts, the other will relax

Organs

- An organ is a group of tissues that have the same function
- They can work with other organs in an **organ system**, such as the respiratory system which uses organs like the heart and lungs to transfer oxygen around the body
- Vital organs are the organs that need to keep functioning for an **organism** to stay alive, e.g. the heart

Movement into and out of cells

- The process in which substances move into and out of cells is known as **diffusion**
- This occurs across the **cell membrane**
- During diffusion particles move from an area of high **concentration**, to an area of low concentration



- Oxygen and nutrients enter the cell by diffusion, carbon dioxide and waste products leave

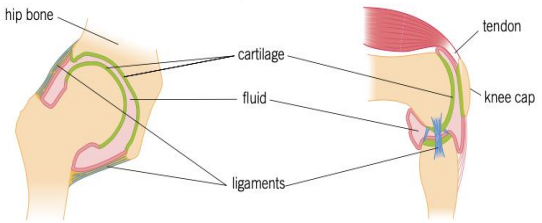
Movement

Joints occur between bones and allow movement, there are three main types of joints

Hinge	Ball and socket	Fixed
For back and forward movement, e.g. knees	*For movement in all directionse.g. hips*	*Do not allow movement, e.g. skull*

Joints have three main types of tissue:

Ligaments	Cartilage	Tendons
Connect bone to bone	*Coats the end of bones as a protection*	*Connects bone to muscle*



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Key words:

Key word	Definition
antagonistic muscle pair	A pair of muscles working in unison to create movement at a joint – as one muscle contracts, the other relaxes.
bone	A tissue that forms a hard structure, used to protect organs and for movement.
bone marrow	Tissue found inside some bones where new blood cells are made.
cartilage	Smooth tissue found at the end of bones. This reduces friction between them preventing rubbing.
cell	The smallest functional unit of a living organism. It contains parts to carry out life processes.
cell membrane	The cell component that surrounds the cell and controls movement of substances in and out.
cell wall	The cell component that surrounds the cell and strengthens it. In plant cells it is made of cellulose.
chloroplast	The plant cell component that absorbs light so the plant can make food by photosynthesis.
circulatory system	Organ system that transports substances around the body.
cytoplasm	Jelly-like substance (found in cells) where most chemical processes happen.
digestive system	Organ system that breaks down and then absorbs food molecules.
flagellum	A tail-like structure that allows euglenas to move.
immune system	The organ system that protects the body against infections.
joints	Parts of the skeleton where bones meet.
leaf cell	The plant cells that contain chloroplasts, where photosynthesis takes place.
ligaments	Connect bones in joints.
mitochondria	Part of the cell where food molecules are broken down during the process of respiration, enabling energy transfer.
multi-cellular (organism)	Living things made up of many types of cell.
muscular skeletal system	The organ system in which muscles and bones work together to cause movement and support the body.
nerve cell	An animal cell that transmits electrical impulses around the body.
nucleus	The cell component that contains genetic material (DNA), which controls the cell's activities.
organ	Group of different tissues working together to carry out a function.
organ system	A group of organs working together to perform a function.
red blood cell	An animal cell that transports oxygen around the body.
reproductive system	The organ systems that produce sperm and eggs, also where the fetus develops.
respiration	A chemical reaction where food and oxygen are converted into water and carbon dioxide, enabling energy transfer.
respiratory system	The organ system that replaces oxygen and removes carbon dioxide from blood.
root hair cell	A plant cell that takes in water and minerals from the soil.
skeleton	All the bones in an organism.
specialised cell	A cell whose shape and structure enable it to perform a particular function.
sperm cell	A cell containing male genetic material.
structural adaptations (of cells)	Special features to help a cell carry out its functions.
tendons	Connect muscles to bones.
tissue	Group of cells of one type, working together to perform a function.
uni-cellular (organism)	Living things made up of one cell.
vacuole	The cell component that contains liquid, and can be used by plants to keep the cell rigid and store substances.

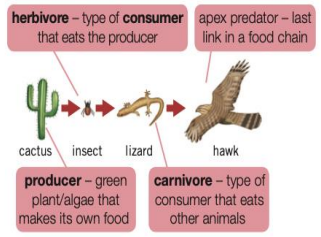
Part 1 – Ecosystem

Key content:

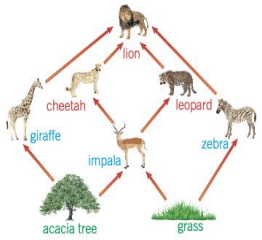
Food chains and webs

- **Food chains** show the direction in which energy flows when one organism eats another
- The direction of the arrows represent the direction in which the energy flows
- **Food webs** show how a number of different food chains are connected

Food chain



Food web



- **Producers** are the organisms which start the food chain, they convert energy from the Sun, making their own food, these are often plants
- **Prey** are organisms which are eaten by other organisms
- **Predators** are the organisms which eat the prey

Disruption to food chains

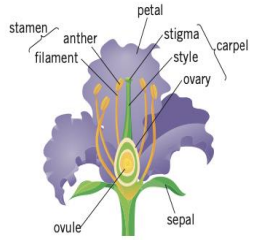
- **Interdependence** is the way in which living organisms rely on each other to survive
- A food chain will be disrupted if one of the organisms die out
- If the producer dies out the rest of the food chain will also die out unless they have a different food source
- If the **consumer** population die out the number of organisms which they eat will increase unless they are eaten by another organism
- **Bioaccumulation** is the process by which chemicals such as pesticides and insecticides build up along a food chain

Parts of a flower

Stamen

Male part of the flower

- The **anther** produces **pollen**
- The **filament** holds up the anther



Carpel

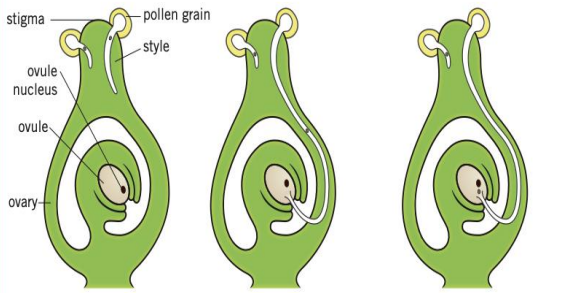
Female part of the flower

- The **stigma** is sticky to catch grains of pollen
- The **style** holds up the stigma
- The **ovary** contains **ovules**

Pollination and fertilisation

Pollination is the **fertilisation** of the ovule, the point at which the pollen is transferred to the ovule from the anther to the stigma, there are two types of pollination

- Cross pollination is between two different types of plant
- Self pollination happens within the same plant



Germination is the process in which the **seed** begins to grow, for this to occur the seed needs:

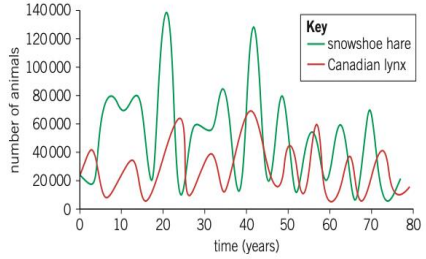
- Water to allow the seed to swell and grow and for the embryo tostart growing
- Oxygen for that the cell can start respiring to release energy forgermination
- Warmth to allow the chemical reactions to start to occur within the seed

Ecosystems

- All of the organisms which live in one area are known as a **population**
- An **ecosystem** is all of the organisms which are found in a particular location and the area in which they live in, both the living and non-living features
- A **community** are all of the areas in an ecosystem, the area in which the organisms live in is known as the **habitat**
- A **niche** is the specific role in which an organism has within an ecosystem, for example a panda's diet consists of 99% bamboo

Competition

- **Competition** is the process in which organisms compete with one another for resources
- Animals compete for food, water, space and mates
- Plants compete for light, water, space and minerals
- The best competitors are those who have adapted in order to best gain these resources
- As the number of a predator in a population increases the number of the prey will decrease as more are being eaten
- As the number of the predator decreases the number of the prey will increase as less are being eaten
- The relationship between the predator and the prey is known as a **predator-prey relationship**



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Key words:

Key word	Definition
anther	The male part of a flower that produces pollen.
bioaccumulation	The build-up of toxic chemicals inside organisms in a food chain.
carpel	The female part of the flower, made up of the stigma where the pollen lands, style, and ovary.
community	The collection of the different types of organism present in an ecosystem.
competition	Competing with other organisms for resources.
consumer	Animal that eats other animals or plants.
decomposer	Organism that breaks down dead plant and animal material so nutrients can be recycled back to the soil or water.
ecosystem	The living things in a given area and their non-living environment.
environment	The surrounding air, water, and soil where an organism lives.
fertilisation	Joining of a nucleus from a male and female sex cell.
filament	The part of a flower that holds up the anther.
food chain	Part of a food web, starting with a producer and ending with a top predator. This diagram shows the transfer of energy between organisms.
food web	A diagram that shows how food chains in an ecosystem are linked.
fruit	Structure that the ovary becomes after fertilisation, which contains seeds.
germination	The period of time when a seed starts to grow.
habitat	The area in which an organism lives.
interdependence	The way in which living organisms depend on each other to survive, grow, and reproduce.
niche	A particular place or role that an organism has in an ecosystem.
ovary	The part of a flower that contains ovules.
ovule	Female sex cells in plants found in the ovary.
petal	A brightly coloured part of a flower that attracts insects.
pollen	Contains the plant male sex cells found on the stamens.
pollination	Transfer of pollen from the male part of the flower to the female part of the flower on the same or another plant.
population	Group of the same species living in an area.
predator	An animal that eats other animals.
prey	An animal that is eaten by another animal.
producer	Green plant or algae that makes its own food using sunlight by the process of photosynthesis.
seed	Structure that contains the embryo of a new plant.
seed dispersal	The movement of seeds away from the parent plant.
sepal	The special leaves found under the flower, which protect unopened buds.
stamen	The male reproductive parts of the flower.
stigma	The female part of a flower that is sticky to catch grains of pollen.
style	The female part of a flower that holds up the stigma.

Urban Issues and Challenges:

Can the lives of the urban poor be improved?

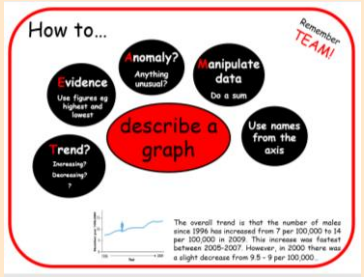
Beckfoot Upper Heaton

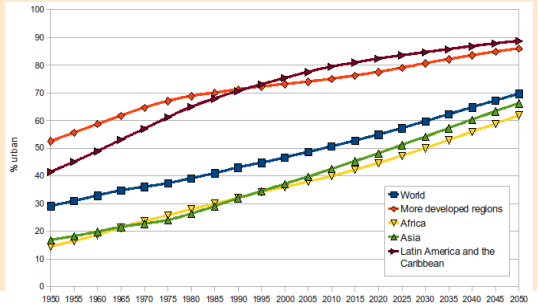
What is Urbanisation?

This is an **increase** in the amount of people living in urban areas such as towns or cities. In 2007 the UN announced that more than 50 % of the world's population live in urban areas.

Where is Urbanisation happening?	Urbanisation is happening all over the world but in LICs and NEEs the rate (the speed at which it is happening) is much faster than HICs

Increase= greater in size/ the number goes up
Decrease= less in size/ the number goes down.
Remains constant= stays the same
Fluctuate = rise and fall/ goes up and down





Causes of Urbanisation

Push	Pull
• Natural disasters • War and Conflict • **Mechanisation** (use of machinery) • **Drought** (lack of water) • Lack of **employment** (fewer jobs)	• More **employment opportunities** (more jobs) • Better access to education & healthcare • Entertainment • Improved quality of life.

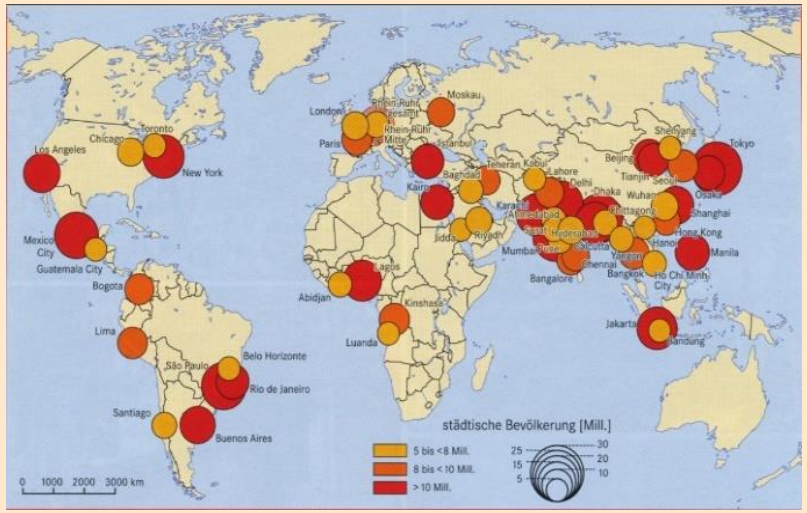
Key terms

Urban	An area with a high population density (lots of people in a crowded area). For example a city is an urban area.
Rural	An area with a lower population density (not as many people and more space). For example the countryside is a rural area.
HIC	High income country – more developed e.g. USA, England. Overall good quality of life. Jobs in service industry and technology.
LIC	Low income country- less developed e.g. Haiti, Nepal, Somalia. Generally poorer quality of life. Jobs in farming.
NEE	Newly emerging economy- countries that are experiencing higher rates of economic development e.g. Brazil, Russia, India, China and South Africa. Improving quality of life. Lots of factories and industry.
Urbanisation	The process by which an increasing percentage of a country's population comes to live in towns and cities. Rapid urbanisation is a feature of many LICs and NEEs.
Push factor	Reasons which make people want to leave an area e.g. lack of jobs, war, famine.
Pull factors	Reasons which make people want to move to an area e.g. access to education, better paid jobs.
Migration	The movement of people from one place to another.
Squatter Settlement	A poor-quality and often illegal area of housing, with a poor supply of water and electricity. Slum/ shanty town.
Sanitation	Measures designed to protect public health, including the provision of clean water and the disposal of sewage and waste.
Inequalities	Differences between poverty and wealth, as well as in peoples' wellbeing and access to things for example jobs, housing and education.

Types of Cities

Megacity	An urban area with over 10 million people living there.

More than two thirds of current megacities are located in either NEEs and LICs. The highest number of Megacities are found in Asia. The number of megacities is predicted to increase from 28 to 41 by 2030.



Impacts of the growth of megacities.

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- Air pollution (health issues- bronchitis)
- Crime
- Lack of space
- Rubbish disposal problems
- Water pollution (cholera/typhoid)
- **Infrastructure** e.g. sewage systems cant cope.
- Lack of housing

+

- Improved services such as hospitals and schools.
- Increase in type of jobs and more opportunities.
- Improved transport networks
- Cultural diversity
- High tech developments and buildings.

Characteristics/ features of Slums e.g. Dharavi, Mumbai (India).

Dharavi is a **squatter settlement** in Mumbai, India. Due to **rapid urbanisation** this illegal settlement **developed** very quickly and houses over 1 million people!

Features of slums.	-no paved roads or sewers -no electricity of phone lines -houses built from waste material e.g. tin/plastic -little space between houses. -low life expectancy of inhabitants -limited medical help and little education -dangerous as limited or no policing. -gangs and drug use common -low skilled and low paid jobs for inhabitants.
Challenges and opportunities In Dharavi slums, Mumbai.	+ 80% of plastic waste gets recycled. +85% or people in the slums have jobs and work locally. +There are informal shops where the people can get everything they need. + Different trades develop in different parts of the slums when people settle e.g. pottery district - Water pipes come on at 5:30am for 2 hours as water is rationed. - 500 people per one public toilet. - Doctors deal with 4,000 cases of diphtheria and typhoid a day. - Dharavi is made up of 12 different neighborhoods and there are no maps or road signs.

Improving Squatter Settlements e.g. Dharavi

Self help scheme	Government and local people work together. The government pay for supplies and the locals build their own homes. Also teaches them new skills
Site and service scheme	People pay a small amount of rent for a site, and they can borrow money to build or improve their house- it has basic services such as running water.
Community based projects	Local charities and organisations deliver workshops e.g. on healthy living or job skills to improve life chances.
Comprehensive redevelopment	When the settlement is knocked down and people are forced to leave. New houses are built but often the people who lived their cannot afford them.

The English Civil War Knowledge organiser

The English Civil War stretches from 1642 to 1651.

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Keywords	Definition
Lord Protector	Title given to Oliver Cromwell after the King's execution.
Monarchy	Name for the King and Queen.
Royalist	Supporter of the King during the Civil War.
Cavaliers	Supports of the King during the Civil War.
New Model army	A disciplined Army created by Parliament.
Republic	A country ruled by the people.
Roundheads	Parliaments supporters during the Civil War.
Civil War	A war between the people of one country.
Catholics	The Catholic church is a branch of Christian church that accepts the Pope as their leader.
Protestant	A branch of the Christian church that separated from the Catholic church in the 16th century.

Key groups/people	
King James I	The first Stuart King. Also King James VI of Scotland and a devout Protestant.
Parliament	A body that represents the people.
Oliver Cromwell	A member of Parliament who set up the New Model arms and becomes Lord protector of the country after the execution of Charles I.
Charles I	The second Stuart King of England. His actions and beliefs led to the outbreak of the English Civil War

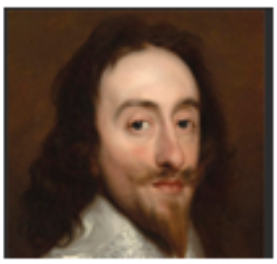
	Key events
1603	King James I became King of England.
1625	King Charles I became King of England.
1629	Parliament is dissolved by Charles I and another one is not called for 11 years.
1640	Charles recalls parliament to pay for a war with Scotland.
1642	Civil War break out.
1648	Parliament win the Civil War.
1649	The trial and execution of King Charles I.

Why was Charles unpopular?

He spent lots of money on his lifestyle and wars This meant he had to frequently ask Parliament to raise taxes When MPs refused, he sent them away for 11 years He was accused of being arrogant, and not listening to anyone's advice People feared he and Henrietta Maria may make England Catholic Charles

After the War

Charles was arrested and put on trial for treason. He was found guilty. He was beheaded in London. His execution was not popular (even though many people hated him). Cromwell took over the Commonwealth (England was no longer a Kingdom). He made the country Puritan, and behaved like a king.

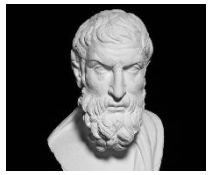


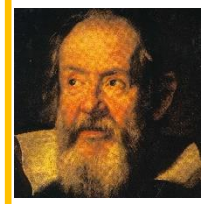
Charles I

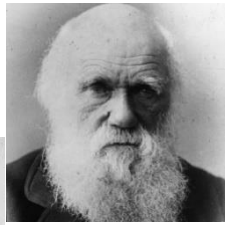
Oliver Cromwell

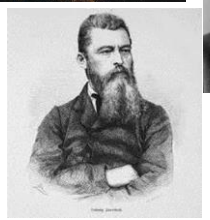
Humanist Thinkers

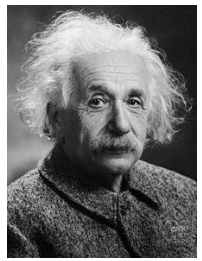
- Charles Darwin proposed the theory of evolution. Although he started as a Christian who believed that God was the driving force behind evolution, the more he researched and the more evidence he found of evolution, he realised that he could not see any traces of God in the world and therefore became an atheist.
- Copernicus lived in a very Christian world, where scientific thinking was not valued as people believed that all truth came from the Bible. He stated that, by looking at outer space, he could tell the earth revolved around the sun– rather than all planets revolving around the earth. This meant that the Bible, which suggested the Earth to be the centre of the universe, was wrong or shouldn't be taken literally.
- Galileo Galilei created a really good telescope that showed him the same as Copernicus and backed up the theory of a heliocentric model of the universe (with the sun at the centre) rather than a geocentric (Earth centred) model. He was sentenced to life imprisonment for disagreeing with the Bible.
- Einstein, although a devout Jew, was one of the most important scientific thinkers of recent times. He made lots of advances in our understanding of the physical world based on reason, evidence and experiments.
- Comte created Positivism, which suggested that only things that are provable should be considered scientific truth and that scientific truth should be used over religious truth. He start the religion of humanity which involved being good to one another and making intellectual progress.
- Hume said we know what is true from our experiences in the world and argued a lot against miracles. He said we should base truth on lots of evidence and experience– not exceptions and stories.
- Feuerbach said that humans invented God but that they were really describing (potential) human nature when they talked about God– Africans had black gods, Europeans white. God is supposed to be loving, forgiving, powerful and kind.

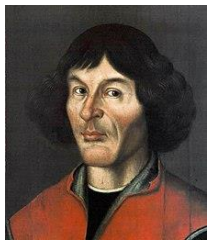


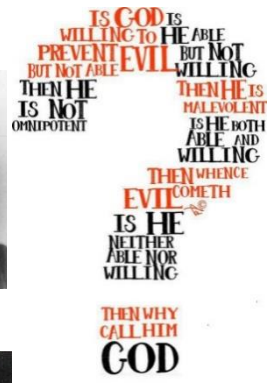












THE PROBLEM OF EVIL

- Epicurus, a Greek philosopher, looked at the world and could not see God's existence and so he set out to prove that God did not exist.
- He said that if God were loving, he would try to stop humans (his creations) from suffering. If God were loving and did not want us to suffer, then he would use his power to stop our suffering. However, people suffer greatly every day, so therefore God must not exist .
- Religious people have tried to argue against this in many different ways but many people, like modern day Stephen Fry, will argue the same thing with more modern detail such as:
- God cannot exist because of the suffering we see in today's world. If the world developed naturally so many cruel or awful things would make sense– they are totally random! However, for example bone cancer in children or bugs who eat the eyes of infants in Africa just do not make sense in a world created by a benevolent, omnipotent, omniscient God.

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RS Knowledge Organiser: Y7 HT6

THE GOLDEN RULE– treat others how you want to be treated:

- Right to belief– everyone should be allowed to practice their religion or lack of religion equally as long as it does not impact on others
- Human rights– Humanists will often right for justice and that everyone should be treated equally. They often volunteer with organisations like Amnesty International or even work for animal rights. They do this because it can bring them happiness to help others.
- While they know this can be found in many religious texts as well, they think it is the best way to live but with no need for God to tell them that.

Moral Dilemma	A situation where there is more than one option of what might be moral	The Problem of Evil	Philosophical argument disproving the existence of God
Science	Study of the structure of the natural world based on evidence and proof	Empathy	Ability to understand and share the feelings of someone else
Evidence	Facts and proof that something is true or false	Respect	To consider the thoughts, beliefs and feelings of others
Atheism	Belief that God does not exist	Compassion	Sympathy and concern for the suffering of others
Agnosticism	Belief that proof in God cannot be proved either way	Dignity	Being worthy of respect and compassion
Critical Thinking	Analyse something, using evidence and reason	Responsibility	Obligation or need to do something
Materialism	Belief that nothing exists outside the material world	Altruism	A belief system which shows selfless concern for others
Reason	The power of the mind to think, understand and form judgements logically	Sentient Being	A thinking or feeling being (people, animals)
Proof	Evidence	The Golden Rule	Treat others how you want to be treated
Natural Evil	Suffering caused by nature– like natural disasters	Humanism	A way of living with morals but rejects the existence of a need for God
Moral Evil	Suffering caused by people– can be intentional or unintentional	Happy Human	Symbol for humanists
Ethics	What you believe to be right or wrong (morals)	Happiness	State of feeling pleasure and contentment
Morals	What you believe to be right or wrong (ethics)	Hedonism	Pursuit of physical pleasure (food, sex, etc.)
Omnipotent	All powerful	Eudaimonia	Live a fulfilling and satisfying life
Benevolent	All loving	Eulogy	Speech given about a deceased person at their funeral
Naming Ceremony	Celebration of the birth of a child	Celebrant	Person who leads a funeral, naming ceremony or wedding
Rites of Passage	Important life events (birth, coming of age, marriage, death)	Handfasting	Tying ribbons around the hands of bride and groom
Truce Bell	A bell married couples use to call for a truce	Evolution	Belief that life changed over many generations due to genetic mutations
Big Bang	The universe started when a hot, dense ball of matter, which was unstable, exploded and expanded into our universe today	Survival of the fittest	Those with the best genetic mutations will survive to have more offspring and pass on their genes
Single Celled Organisms	All life started on the world as just one celled organisms like bacteria	Natural Selection	Those with the best genetic mutations will survive to have more offspring and pass on their genes
Genetic Mutation	When there are changes in the genetic code of offspring from their parents	Enlightenment	A time in the 18th century focusing on intellectualism and reason, rather than religion
Rationalism	The practice of basing opinions and actions on reason and knowledge rather than on religious belief or emotional response	Burden of Proof	Obligation to prove what you believe
Freedom of Expression	Right to express your opinion, so long as it does not incite hatred or cause harm to someone else	Democracy	System of government where all citizens get a say through voting and elected representatives
Social Justice	When everyone in society get the same rights and are treated equally	Equality	All should be treated the same and given the same rights
Prejudice	Judging someone before you know them on their race, religion, etc.	Discrimination	Treating someone differently because of race, religion, sexuality, etc.

FOOD & DRINK

A. FOOD

le pain	bread
le fromage	cheese
le jambon	ham
la viande	meat
le poulet	chicken
le boeuf	beef
le porc	pork
le poisson	fish
le thon	tuna
les pommes de terre	potatoes
les frites	chips
la lait	milk
la glace	ice cream
le yaourt	yoghurt
le gâteau	cake
l'eau minerale	water
les biscuits	biscuits
les pâtes	pasta
le riz	rice

B. LES REPAS

les repas	meals
le petit déjeuner	breakfast
le déjeuner	lunch
le dîner	dinner
le café	coffee
le thé	tea
le sucre	sugar
le jus d'orange	orange juice
le vin blanc/rouge	white/red wine
les céréales	cereal
le pain grillé	toast

C. FRUIT & VEG

les fruits	fruit
les fraises	strawberries
les bananes	bananas
l'ananas	pineapple
le melon	melon
la pomme	apple
la pêche	peach
les poires	pears
les oranges	oranges
le citron	lemon
les legumes	vegetables
les oignons	onions
les haricots verts	green beans
les carottes	carrots
le concombre	cucumber
la laitue	lettuce

D. ADJECTIFS

frais/fraîche	fresh
parfait(e)	perfect
barbant(e)	boring
dégoutant(e)	disgusting
délicieux/	delicious
épicé(e)	spicy
fort(e)	strong
cher(e)	expensive
peu varié(e)	not much choice
de mauvaise	poor quality
impoli	impolite
sale	dirty
sucré	sweet
salé	salty
propre	clean

Positive opinions
J'aime
J'aime beaucoup
J'adore
Je préfère

Negative opinions
Je n'aime pas
Je déteste

+ le/ la/ les

plus ____ que
= more ____ than

moins ____ que
= less ____ than

e.g. **J'aime le poulet plus que le boeuf.**
I like chicken more than beef.

SOME	
de + le	du
de + la	de la
de + les	des

Je mange du pain avec de la confiture.

Intensifiers
Très = very
Beaucoup = a lot
Un peu = a little
Assez = quite
Trop = too

FOOD & DRINK

Qu'est-ce que vous prenez?
What are you having?

Je prends...
I'm having...

E. AU RESTAURANT/MARCHÉ	
le plat principal	main course
l'entrée	Starter
le dessert	dessert
la carte	the menu
les serveurs	the waiters
le service	the service
l'ambiance	the atmosphere
un restaurant lo-cale/chinois/ indien/italien	local/Chinese/ Indian/Italian restaurant
Qu'est-ce que vous voulez/désirez?	What would you like?
Et avec ça?	Anything else?
Avez-vous?	What are you having?
Donnez-moi...	Give me...
s'il vous plaît	please
Comme entrée...	As a starter...

F. LES QUANTITÉS	
un kilo de	a kilo of
cinq cent grammes de	500g of
une tasse de	a cup of
une boîte de	a tin of
un carton de	a box of
un litre de	a litre of
une bouteille de	a bottle of

G. LA SANTÉ	
manger sainement	to eat healthily
être en bonne santé	to be in good health
surveiller mon poids	to watch my weight
un regime équilibré	a balanced diet
Ce n'est pas bon pour la santé	It's bad for your health

Frequency Phrases
Normalement = normally
En général = in general
Tous les jours = every day

Connectives
Et = and
Aussi = also
De plus = Moreover
Cependant = however
Néanmoins = nevertheless

ESSENTIAL VERBS

AVOIR—TO HAVE	
J'ai	I have
Tu as	You have (s)
Il/elle a	He/she has
Nous avons	We have
Vous avez	You have (pl)
Ils/elles ont	They have

ÊTRE—TO BE	
Je suis	I am
Tu es	You are (s)
Il/elle est	He/she is
Nous sommes	We are
Vous êtes	You are (pl)
Ils/elles sont	They are

I. KEY VERBS (PRESENT)	
Je bois	I drink
Je mange	I eat
J'aime	I like
J'adore	I love
Je préfère	I prefer
C'est	It is
Il y a	There is/are
Je voudrais	I would like
J'ai faim	I'm hungry
J'ai soif	I'm thirsty
J'ai besoin de	I need

H. COMPLEX PHRASES	
Ce que j'aime le plus c'est...	What I like the most is...
Ce que j'aime le moins c'est...	What I like the least is...
Ce que je préfère c'est...	What I prefer is...

J. KEY VERBS (PAST)	
J'ai mange	I ate
J'ai bu	I drank
J'ai pris	I had
J'ai aimé	I liked
J'ai préféré	I preferred
J'ai choisi	I chose
C'était	It was

Knowledge organiser-Home

Adjectives — Sifaat — صفات

English	Roman	Urdu		
Big	Bara, bari, barey	بڑے	بڑی	بڑا
Small	Chota, choti, chotey	چھوٹے	چھوٹی	چھوٹا
Two storey	Do manzilah	دو منزلہ		
Three storey	Teen manzilah	تین منزلہ		
Spacious	Kushaadah	کشادہ		
Spacious	Khulla, khulli, khulle	کھلے	کھلی	کھلا
Congested/tight spaced	Tang	تنگ		
Floor	Manzil	منزل		
New	Naya, nayee, nayay	نئے	نئی	نیا
Old	Purana, purani, purane	پرانے	پرانی	پرانا

Types of house — Mukhtalif qisam key ghar — مختلف قسم کے گھر

English	Roman	Urdu
Castle	Qila	قلعہ
Bunglow	Banglah	بنگلہ
Flat	Flat	فلیٹ
Villa	Kothi	کوٹھی
Terraced	Muttasil	متصل
Terraced	Terraced	ٹیریسڈ
Semi-detached	Neem muttasil	نیم متصل
Detached	Alaahidah	علیحدہ
Detached	Ghair muttasil	غیر متصل

Parts of the house — Ghar key hissey — گھر کے حصے

English	Roman	Urdu
House	Ghar	گھر
Rooms	Kamrey	کمرے
Living room	Beythak	بیٹھک
Kitchen	Bavarchi khana	باورچی خانہ
Floor	Manzil	منزل
Bedroom	Soney ka kmarah	سونے کا کمرہ
Bathroom	Ghusal khana	غسل خانہ
Attic	Bala khana	بالا خانہ
Cellar/ basement	The khana	تہ خانہ
Garden	Baagheecha	باغیچہ

Verbs — Af'aal — افعال

English	Roman	Urdu
Eating	Khana khana	کھانا کھانا
Studying	Parhai karna	پڑھائی کرنا
Gardening	Baaghbani karna	باغبانی کرنا
Cooking	Khana pakana	کھانا پکانا
Watching T.V	T.V dekhnaa	ٹی وی دیکھنا
Sleeping	Sonaa	سونا
Taking a bath	Nahaanaa	نہانا
Sitting	Beythnaa	بیٹھنا

Comparative sentences — Taqqabuli jumley — تقابلی جملے

میرا گھر میرے بھائی کے گھر سے بڑا ہے۔

Mera ghar merey bhai key ghar sey bara hai.

My house is bigger than my brother's house.

Pronouns

Where	Jahan	جہاں
In which	Jis mein	جس میں
In which	Jin mein	جن میں
Which is	Jo	جو

Key sentences to learn

Colour coding:
Blue= Masculine Red= Feminine (only pick one)

Mein Bradford mein rehta/rehti hoon.	I live in Bradford	میں بریڈفورڈ میں رہتا/رہتی ہوں۔
Mein aik muttasil ghar mein rehta/rehti hoon.	I live in a terraced house.	میں ایک متصل گھر میں رہتا/رہتی ہوں۔
Merey ghar mein do manzilain hain.	There are two floors in my house.	میرے گھر میں دو منزلیں ہیں۔
Merey ghar ki pehli manzil par aik beythak hai jahan mein apney ghar valo key saath T.V dekhta/dekhti hoon.	On the first floor of my house there is a living where I watch T.V with my family.	میرے گھر کی پہلی منزل پر ایک بیٹھک ہے جہاں میں اپنے گھر والوں کے ساتھ ٹی وی دیکھتا/دیکھتی ہوں۔
Is key alaava yahan aik chota bavarchi khana aur aik ghusal khana bhi hai.	Apart from this there is a small kitchen and also a bathroom.	اس کے علاوہ یہاں ایک چھوٹا باورچی خانہ اور ایک غسل خانہ بھی ہے۔
Doosri manzil par teen soney key kamrey hain jin mein hum sab sotey hain.	There are three bedrooms on the second floor in which we sleep.	دوسری منزل پر تین سونے کے کمرے ہیں جن میں ہم سب سوتے ہیں۔
Is key alaava yahan aik baraa ghusal khana bhi hai jis mein mein nahaata/nahaati hoon.	Apart from this there is a there is a big bathroom here in which I take a bath.	اس کے علاوہ یہاں ایک بڑا غسل خانہ بھی ہے جس میں میں نہاتا/نہاتی ہوں۔
Beythak mein do barey sofey, aik naya qaaleen aur T.V hain.	In the living room there are two big sofas, one new rug and a T.V.	بیٹھک میں دو بڑے صوفے، ایک نیا قالین اور ٹی وی ہیں۔
Mein bavarchi khaney mein apni ammi key saath khana pakaata/pakaati hoon aur kaprey dhota/dhoti hoon.	I cook food in the kitchen with my mum and wash clothes.	میں باورچی خانے میں اپنی امی کے ساتھ کھانا پکاتا/پکاتی ہوں اور کپڑے دھوتا/دھوتی ہوں۔
Hamarey baaghechey mein aik bohat bara garage hai jahan merey abbu apni gaari kharri kartey hain.	In our garden there is a very big garage where my father parks his car.	ہمارے باغیچے میں ایک بہت بڑا گیراج ہے جہاں میرے ابو اپنی گاڑی کھڑی کرتے ہیں۔
Merey bhai ka kamra merey kamrey se baraa hai.	My brother's room is bigger than my room.	میرے بھائی کا کمرہ میرے کمرے سے بڑا ہے۔

SAMBA

Samba is a musical genre and dance style with its roots in Africa via the West African slave trade and African religious traditions. Samba is an expression of Brazilian cultural expression and is a symbol of carnival. Samba schools formed and compete bringing people together.

Tier 2 Vocabulary:

Compose – to make
Contrast – different
Select - to choose
Recognise – know what something is.
Respond – to answer
Explore – to find out
Repeat - do it again
Demonstrate - show it

A. Key Words and Terms in Samba Music

CALL AND RESPONSE – one person plays or sings a musical phrase, then another person/group responds with a different phrase or copies the first one.
CYCLIC RHYTHM – a rhythm that is repeated over and over again.
IMPROVISATION – making up music as you go along, without preparation.
OSTINATO – a repeated pattern. Can be rhythmic or melodic; usually short.
PERCUSSION – Instruments that are mostly hit, scraped or shaken to produce sound. Samba uses many percussion instruments which together are called a **BATERIA**.
POLYRHYTHM – the use of several rhythms performed simultaneously, often overlapping each other to create a thick texture.
PULSE – a regular beat that is felt throughout music
RHYTHM – a series of notes of different lengths that create a pattern. Usually fits with a regular beat or pulse.
SYNCOPATION – accenting or emphasising the weaker beats of the bar (often a half beat (quaver) followed by a full beat (crotchet)) giving the rhythm an **OFFBEAT** feel.
SAMBISTA – the leader of a Samba band or ensemble, often signalling cues to the rest of the band of when to change sections within the music with an **APITO** (Samba whistle)

B. Form and Structure of Samba

Samba music often starts with an **INTRODUCTION** often featuring **CALL AND RESPONSE RHYTHMS** between the Samba Leader and ensemble. The main Ostinato rhythm of Samba is called the **GROOVE** when all the instruments of the Samba Band play their respective rhythms over and over again **(CYCLIC RHYTHMS)** forming the main body of the piece. The **GROOVE** is broken up by **BREAKS** - 4 or 8 beat rhythms providing contrast and **MID SECTIONS** – one or two instruments change the rhythm of their ostinato and the others stay the same or stop. Sometimes **BREAKS** and **MID SECTIONS** feature a **SOLOIST** who "shows off" their rhythms. The **SAMBISTA** must signal to the group when to change to a different section which is normally done with an **APITO** (Samba Whistle – loud!). A piece of Samba can end (this section is called the **CODA**) with either a **CALL AND RESPONSE** pattern or a pre-rehearsed ending phrase of rhythm. The **FORM AND STRUCTURE** of a piece of Samba may look like the following:

Intro	Groove	Break	Groove	Mid-Section	Groove	Mid-Section	Groove	Break	Groove	Coda

C. Texture of Samba Music

Texture varies in Samba music, often **MONOPHONIC** where a single rhythm is heard as in **CALL AND RESPONSE** sections, sometimes **POLYPHONIC** where sections of the Samba band play different rhythms **(OSTINATOS)** creating **CROSS-RHYTHMS** (when two rhythmic patterns that "conflict" with each other occur simultaneously) creating a thick texture of interweaving and interlocking rhythms – a **POLYRHYHM** or a **POLYRHYTHMIC TEXTURE**.

D. Dynamics of Samba Music

The dynamics of Samba music are normally **VERY LOUD** – it is music designed to be performed outdoors at carnivals and is played by large numbers of instrumentalists and to accompany dancers and processions with large audiences watching and listening. Sometimes, a **CRESCENDO** is used at the end of a piece of Samba music for dramatic effect.

E. Tempo of Samba Music

Samba music is generally **FAST** at around 104 bpm and keeps a constant tempo to assist the dancers or processional nature of the music. Sometimes the **SAMBISTA** (Samba leader) uses **(TEMPO) RUBATO** – tiny fluctuations in tempo for expressive effect.

F. Instruments, Timbres and Sonorities of Samba

SURDO

REPINIQUE

TAMBORIM

CHOCOLO

RECO-RECO

APITO

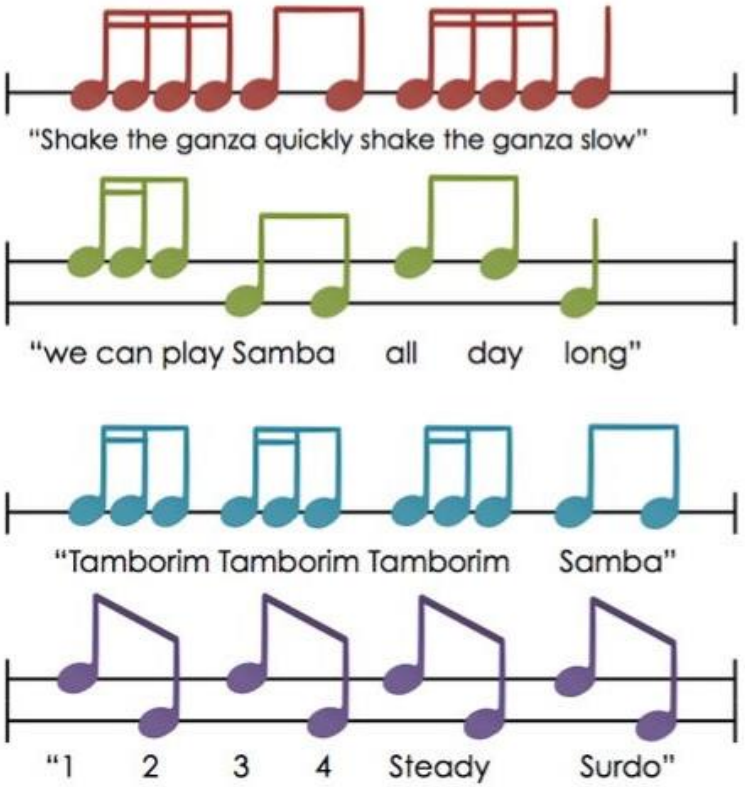
AGOGO BELLS

CAIXA DE GUERRO

Comes from Brazil:

Ensemble
- a musical group

Rhythms:



Used for Carnivals:

Instruments:

Knowledge Organiser: Year 7 Superhero Torch

Soldering a circuit.

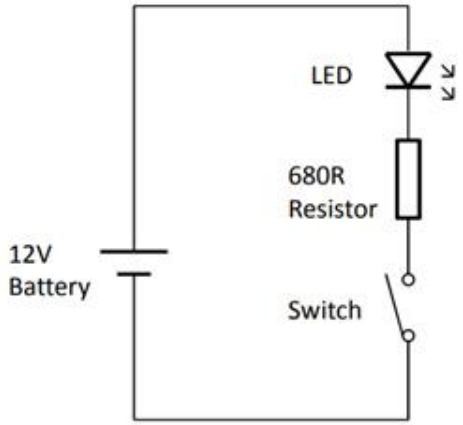
Creating a CAD/CAM superhero logo label using the CriCut.

LED : Light Emitting Diode

CAD : Computer Aided Design

CAM : Computer Aided Manufacture

How the Torch Works



The circuit diagram for the torch is shown above. It is a very simple circuit, powered by a 12 Volt battery.

The LED would be damaged if the current through it was not limited. A 680Ω resistor has been selected to limit the current through the LED. This allows approximately 10mA to flow through the LED so that it is at a good brightness.

Finally the on / off switch allows the circuit to be opened, when the LED will be off, or completed, when the LED wil be on.

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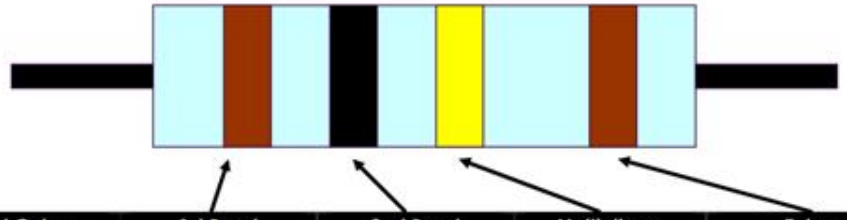
Resistor Values

Beckfoot Upper Heaton

A resistor is a device that opposes the flow of electrical current. The bigger the value of a resistor, the more it opposes the current flow. The value of a resistor is given in Ω (ohms) and is often referred to as its 'resistance'.

Identifying resistor values



Band Colour	1st Band	2nd Band	Multiplier x	Tolerance
Silver			÷ 100	10%
Gold			÷ 10	5%
Black	0	0	1	
Brown	1	1	10	1%
Red	2	2	100	2%
Orange	3	3	1000	
Yellow	4	4	10,000	
Green	5	5	100,000	
Blue	6	6	1,000,000	
Violet	7	7		
Grey	8	8		
White	9	9		

Knowledge Organiser: Year 7 Superhero Torch

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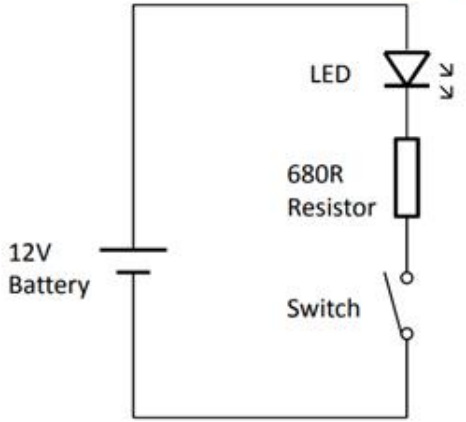

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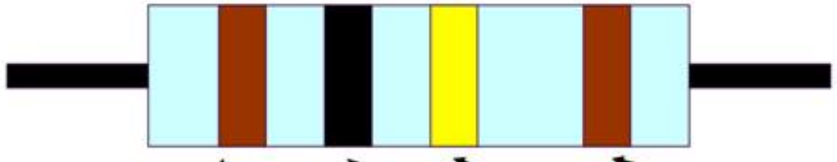

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Black	0	0	1	
Brown	1	1	10	1%
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Orange	3	3	1000	
Yellow	4	4	10,000	
Green	5	5	100,000	
Blue	6	6	1,000,000	
Violet	7	7		
Grey	8	8		
White	9	9		

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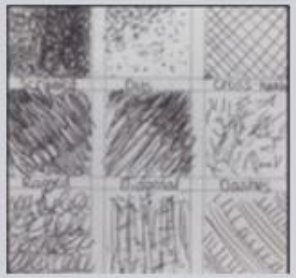
Knowlege Organiser: Year 7



1.Experiment with a range of mark making techniques in pen and pencil

2. Produce a range of observational studies of insects from secondary sources.

3. Experiment with coloured pencil shading and blending techniques

4. Complete a series of monoprints looking at insects.

5. Complete a colour theory A3 sheet using block paints.

6.Paint a small section inspired by your chosen artist.

7. Plan and design four thumbnail compositions.

9. Complete a final painting using paint, with at thoughtful and considered composition

Knowledge Organiser: Yr7 Textiles—Henri Matisse Pencil case—Theory

Beckfoot Upper Heaton

Key words/ terms:	
Tie dye	A resist method of dying (colouring) fabric to create surface pattern
Applique	A decorative technique where additional shaped fabrics are sewn on to create a pattern or decoration
Embellishment	An additional decorative feature. i.e: beads, sequins, ribbons etc.
Embroidery	Stitches that create a pattern/design on the surface of fabric – by hand or machine
Seam Allowance	The distance from the edge of the fabric to where you sew the fabric together
Pressing	Use of a hot iron to add creates or folds in fabric, usually to create a neat finish to hems and seams
Hem	The folded and sewn edge of fabric
Seam	Where two pieces of fabric join together by stitching
Pin	A thin piece of metal with a flat and pointed end to temporarily join things together
Needle	A thin piece of metal with a point at one end and an 'eye' at the other for thread to attach – then used to sew
Zip	A fastening that can be used to temporarily join two pieces of fabric together
Sewing	The process of passing thread through a fabric to join together or add decoration
Thread	A piece of spun polyester or cotton to sew with
'Bagging out'	The process of sewing the 'right sides' of fabrics together and then turning inside-out to hide the seams, hems and raw edges
Cotton poplin	A fabric made by weaving natural cotton fibres together
Felted fabric (felt)	A non-woven fabric where woollen fibres are pressed and matted together
Colourway	A range of colours that are used within a design, often showing a theme

COMPLEMENTARY

Uses a pair of colours that are opposite each other on the colour wheel. The pairs are: Green/Red; Blue/Orange; Yellow/Purple.

Design Process	
Design brief	A statement outlining what is to be designed and made
Artist research	Sourcing information on a specific artist, designer or movement to help with design work
Design ideas	A range of potential solutions to the problem
Final design	A presentation drawing of chosen idea
Production diary	A record of the making/ practical work
Evaluation	Reviewing strengths and weaknesses of final product and design work

Useful links/ further reading:
10 Amazing Facts about French Painter Henri Matisse - Bing video
Henri Matisse for kids part 1 - YouTube

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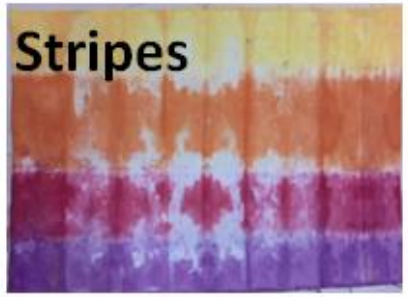
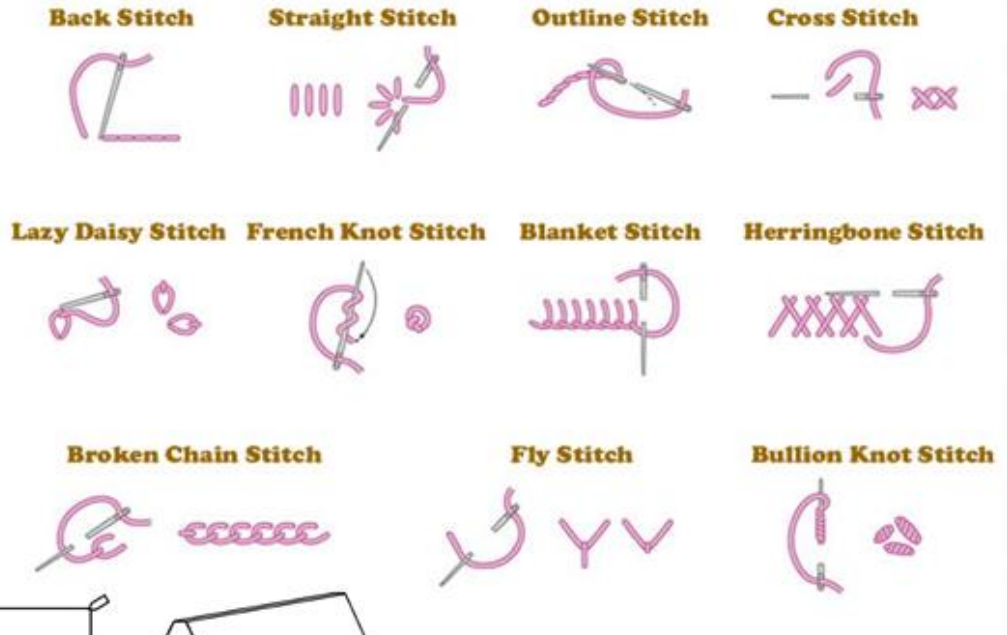
Knowledge Organiser: Yr7 Textiles—Henri Matisse Pencil case—Practical

Beckfoot Upper Heaton

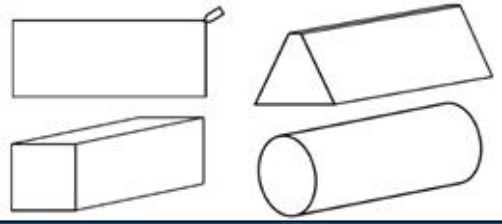
Tie Dye



Hand Embroidery Stitches



Technical skills covered:
Tie Dye
Felt applique (hand)
Embellishment (embroidery, beading, etc.)
Fabric cutting/ use of patterns
Seam Allowances
Ironing/ pressing hems
Inserting zip
'Bagging out'



Useful links/ further reading:

Hand Embroidery for Beginners - Part 2 | 10 Basic Stitches | Handi-Works #52 - YouTube

50 Hand Embroidery Stitches: Beginners Tutorials by HandiWorks - YouTube

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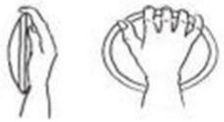
What we will use:	
Practical Equipment	**Materials**
Fabric dye	Cotton poplin
Pins	Felt
Hand needles	Closed-end zip
Fabric scissors	Embroidery thread
Iron/ Ironing board	
Pattern pieces	

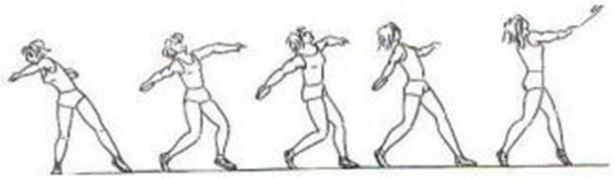
KS3 Athletics

Throwing

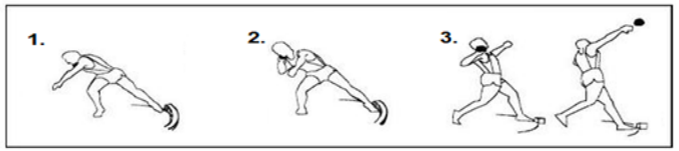


Discuss – Grip + Action:

- 'Swing' arm from a high to low position
- Release shot at 45 degrees

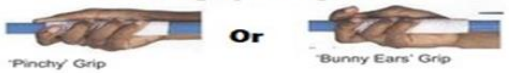


1. Chin, knee and toe in a line
2. make a bow
3. push and watch it go

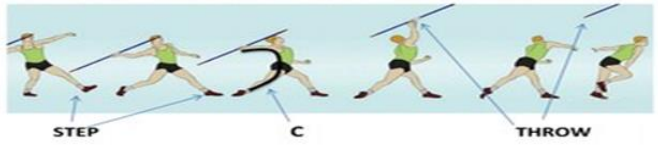


Javelin

Which grip will you use?



The basics - can you step, make a C and throw?



Rules of Athletics

Track - You must be behind the line before you start a race.
- You must wait for the gun to sound before starting, if you start before the gun it is a false start and the race will start again.
- You must stay in your own lane, if you cross into someone's lane you will be disqualified from the race.

Field (throwing) - When throwing you must stay behind the throwing line.
- If the object you are throwing goes out of the throwing area it is a 'no throw'

Field (Jumping) - When jumping you must take off from the board or behind it.
- You must jump into the designated area.
- When measuring a jump you measure from the point closet to the take off board.

Running

Sprint Start Technique

On Your Marks	Get Set	Go!
➢ Rear knee should be level with front foot	❖ Raise hips higher than shoulders	✓ Drive knee of rear leg forwards
➢ Form a 'V' behind the line with your hands	❖ Lift legs at the knees	✓ Extend front leg out
➢ Arms shoulder width apart, slightly ahead of hands	❖ Body weight on hands and feet equally	✓ Lean forwards
		✓ Don't become upright too early

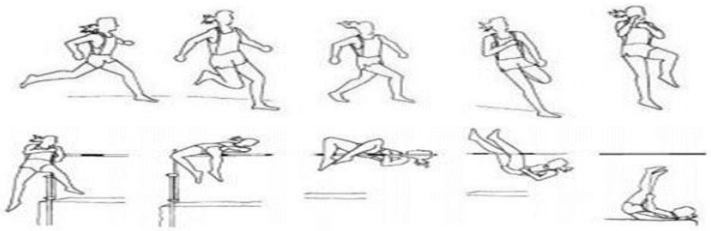
Up-Sweep

Down-Sweep

Jumping

High Jump – Fosbury Flop Technique:

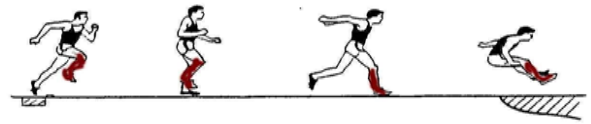
- Curve run up
- Take off with nearest leg to the bar (1 footed)
- Us arms to drive the jump upwards
- Push hips forward to arch back on take off.



Long Jump

1. run towards marker
2. take off on strongest foot
3. use your arms and legs for height and distance
4. land safely on two feet

Sequence for Triple Jump



HOP must take off and land on same foot

STEP must land on opposite foot

JUMP must land in the landing area