Harrow Way Community School
Learning for life, success for all

Year 7 Knowledge Organiser

Summer Term

How do I complete Knowledge Organiser Homework?

Link to self-quiz video: https://youtu.be/cFUuhtPIMPU

Step 1

Check on:
ShowMyHomework for what words / definitions / facts you have been asked to learn.

Step 2

Write today's date and the title from your Knowledge Organiser in your self-quizzing book.

Step 3

Read the section of the Knowledge Organiser that you are studying. Read it slowly, you can read it aloud and with a ruler if this helps.

Step 4

Cover up the section and try to write out the information exactly as it is written on the Knowledge Organiser in your self-quizzing book.

DO NOT PEEK!

Step 5

Uncover the section and compare it to what you have written. If you have made mistakes or missed parts out, add them in using a pencil or a different colour.

Step 6

Repeat steps 3-5 again until you are confident.
You will need to bring your self-quizzing book in every day and your teacher will check your work.
You will be tested in class.

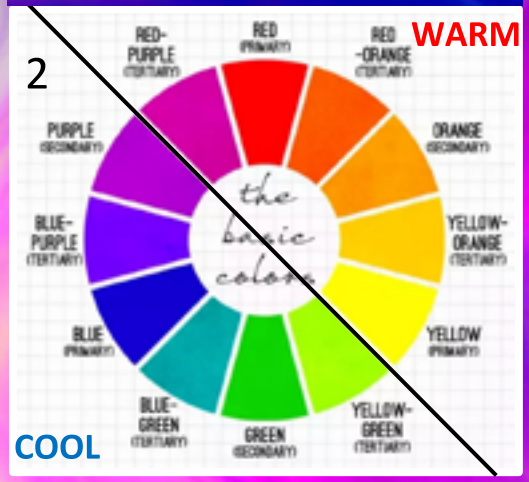
Knowledge Organiser - YEAR 7 - SUMMER TERM

Contents

1 COLOUR

Colour plays a vitally **important** role in the world in which we live. **Colour** can sway thinking, change actions, and cause reactions. It can irritate or soothe your eyes, raise your blood pressure or suppress your appetite. As a powerful form of communication, **colour** is irreplaceable.

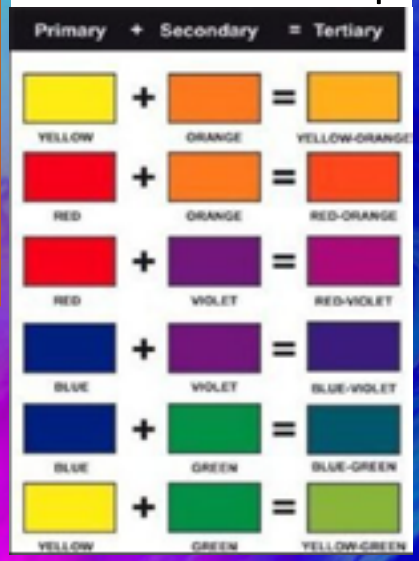
COLOUR WHEEL 2



Cool colours painting

Warm colours painting

4



5

TINT
is adding white to a colour

TONE
is adding grey to a colour

SHADE
is adding black to a colour

ADJECTIVES TO DESCRIBE COLOURS 3

Light Bright Vivid Glowing Vibrant Brilliant Intense Dazzling Subdued Diluted Gloomy Depressing Pale Dull Murky Muted Monotonous Fluorescent Saturated Opaque Transparent

COLOUR SCHEMES 6

PRIMARY

Uses the primary colours: Red, Yellow & Blue. They can not be made by mixing other colours.

COMPLEMENTARY

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

SECONDARY

Uses the secondary colours: Orange, Green & Purple. Each secondary colour is made by mixing two primary colours.

HARMONIOUS

Uses three or four colours (primary, secondary and tertiary) that are next to each other on the colour wheel.

TERTIARY

Uses the tertiary colours. They are made by mixing a primary and a secondary colour next to each other on the colour wheel.

MONOCHROMATIC

Uses Tints, Tones & Shades of one colour. The word MONO means ONE and the word CHROMA means INTENSITY OF COLOUR.

DRAWING

The **basic craft of drawing** is about two things: **1. To control your hand** and **2. Learn to see.**

Line drawing

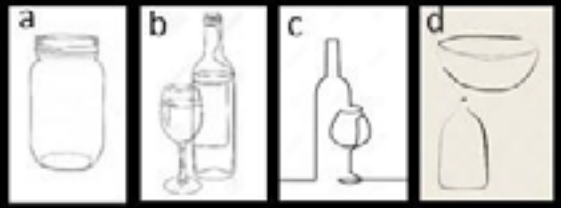
1 ELLIPSES:
The circle found at the top and the base of a cylindrical object; i.e. bottle, cylinder, etc. Ellipse can also occur when the sides of the bottle change direction, i.e. get narrow or wide.

2 CENTRE LINE: Divides the object vertically in two equal parts.
LINE OF SYMMETRY: the line at which the bottle is symmetrical.
Mirror image symmetry: exactly matching opposite sides

3 POSITIVE SPACE: (*Object in white*)
The space occupied by the object/s.

NEGATIVE SPACE: (*All in black*)
The rest of the space around or in between the object/s.

4 LINEAR DRAWING
A drawing using line only to:
a) outline the shape of the object;
b) to add detail;
c) using continuous line (without lifting your pencil of the paper from start to finish.
d) Minimalist drawing



Tonal drawing

5 FLAT TONE:
A solid block of tone, see Tonal Ladder. It has no outlines. Different flat tones next to each other define shapes.

6 SHADING:
When the tone gradually changes from dark to light. It can appear a) smooth or b) rough by using lines called **Hatching** or **Cross Hatching.**

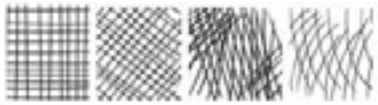
SHADING (light from the side):
On the outside of the object the tone changes gradually from one side to the other. Light and dark areas swap direction on the inside opening of the object like in this cup.

SHADING (light from the centre):
The tone is dark on both sides and smoothly gets light in the middle. It gives a 3D effect and looks very realistic.

7 TEXTURE and MARK-MAKING:
Texture is the **surface quality** of something. Artists use mark-making techniques to represent different textures.

8 Hatching

Cross- Hatching in 2, 3 or more directions



Other elements of drawing

9 PERSPECTIVE:
the art of representing three-dimensional objects on a two-dimensional surface so as to give the right impression of their height, width, depth and position in relation to each other.

10 RANGE OF PENCILS:

11 FOREGROUND: An art term that describes the objects in the scene that are closest to the viewer. It is the part in front of everything else and has the most detail.

MIDDLE GROUND: lies between the foreground and background of a painting. The objects in this area appear smaller. They are usually placed behind the objects in the foreground.

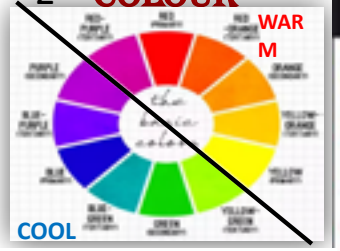
BACKGROUND: is the part of a scene or picture that is farthest from the viewer. It usually has the least detail.

12 COMPOSITION:
Refers to the organisation, arrangement, and combination of objects within the borders of a **drawing** space.
For a great **drawing**, you want to bring the eyes of the viewer toward your centre of interest within an aesthetically pleasing **composition.**

FORMAL ELEMENTS

1 The Formal Elements are: **line, shape, form, tone, texture, pattern and colour**. They are used together to create artwork.

2 COLOUR



TINT
is adding white to a colour

TONE
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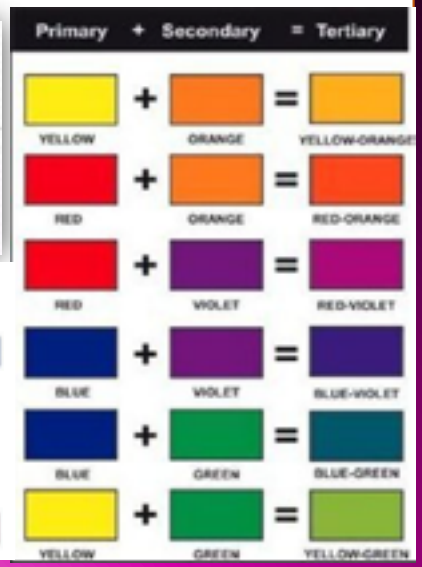
SHADE



3 PATTERN

is a symbol or shape that is repeated. A design that is created by repeating lines, shapes, tones or colours. The design used to create a pattern is often referred to as a **motif**. Motifs can be simple shapes or complex arrangements. Tessellating any image creates a Repetitive pattern.

4 LINE

is the path left by a moving point, i.e. a pencil or a brush.
A line can take many forms. It can be horizontal, diagonal or curved. Line can be used to show: contours (the shape and form of something); movements, feelings

5 SHAPE

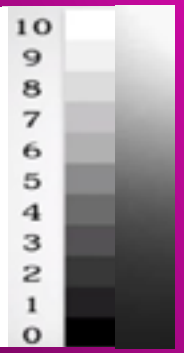
is an area enclosed by a line. It could be just an outline or it could be shaded in. When drawing shapes, you must consider the size and position as well as the shape of the area around it. The space between the shapes is called **negative space**.

6 FORM

is a three dimensional shape (3D), such as a cube, sphere or cylinder. Sculpture and 3D design are about creating forms. In 2D artworks, lines, tones and perspective can be used to create an illusion of form. The three dimensions of form are width, length and depth.

7 TONE

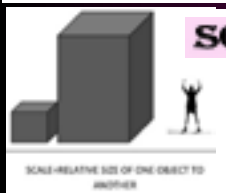
is the lightness or darkness of an object. This could be a shade or how dark or light a colour appears. Tones are created by the way light falls on a 3D object. In every 3D object there are minimum of 3 tones; light, mid-tone and dark. Tone can be flat or it can vary from dark to light.



8 TEXTURE

is the **surface quality** of something, the way something feels or looks like it feels. **Actual texture** really exists, so you can feel it or touch it.
Visual texture is created using marks to represent actual texture. It gives the illusion of a texture or surface. You can create visual texture by using different lines, shapes, colours or tones.

SCALE 9



is the size of one object in relation to the other objects in a design

10 PROPORTION

refers to the relationship of the sizes of two or more subjects or elements.

Art - Painting

PAINTING

1. The act of **painting**, using a brush, palette knife, sponge, or airbrush to apply the paint; 2. The result of the action – the **actual picture**.

1 Watercolour brushes:
Are specially made to allow the artist to control the flow of the colour from the **brush** onto the paper. A watercolour brush should hold a fine point when wet and spring back into shape after each stroke. It should carry the colour allowing the artist to:
a) lay it down on the paper evenly 2) consistency.

2 WATERCOLOUR:
a) Paints that are made of pigments suspended in a water-based solution (binder).

b) The art of painting with watercolours, especially using a technique of producing paler colours by diluting rather than by adding white.

WATERCOLOUR PAPER:
Best watercolour papers are made from **cotton fibres.** There are three types of w/c paper.

HP- Hot Press. Smooth surface for detailed work
CP (NOT) – Cold press. Slightly textured for most types of work
Rough – Heavily textured paper enhances the final piece of work.

3 WATERCOLOUR TECHNIQUES:
a) **Wash:** When watercolour mixture is gradually diluted with water.

b) Blending: When two colours seamlessly merge into one another.

c) Wet –on – Wet: Water is applied onto the paper and then paint is applied onto it.

d) Masking Fluid
It is a rubber type product that prevents the paint from reaching the paper and is peeled off to expose the whitepaper left untouched.

4 ROUND BRUSHES:
Good for sketching, outlining, detailed work, controlled washes, filling in small areas.

FLAT BRUSHES: Good for bold strokes, washes, filling wide spaces, impasto. Edge can be used for fine lines, straight edges and stripes.

5 ACRYLIC PAINT: Opaque and semi-opaque fast-drying paint made of pigment and acrylic polymer emulsion dilutable with water.

ACRYLIC PAINTING SURFACES:
Canvas, paper, wood, or anything which is neither greasy nor too glossy.

ACRYLIC PAINTING BRUSHES:
A good selection of round and flat stiff synthetic brushes. Palette knives.

6 ACRYLIC PAINTINGS TECHNIQUES:
UNDERPAINTING: A layer of paint applied first to a canvas or board.

a) Tonal Grounds Under Painting
This type of painting has the entire canvas covered in a single transparent colour. This layer will create backlighting shadows that will tone the entire painting and provide contrast.

b) A Tonal Under-Painting
A layer of paint applied first that acts as a foundation for the painting with some **built in contrast** and **tonal values.**

IMPASTO: A technique used in **painting**, where paint is laid on in very thick layers that the brush or **palette**-knife strokes are visible. Paint can also be mixed right on the canvas. When dry, impasto provides texture; the paint appears to be coming out of the canvas.

7 POSTERPAINT:
A semi-opaque paint with a water-soluble binder, used mainly in schools.

8 OIL PAINTS: is a type of slow-drying **paint** that consists of pigment suspended in a drying **oil**, commonly linseed **oil**. Not used in schools.

9 MIXED MEDIA:
A Technique that uses more than one medium or material. Assemblages and collages are two common examples of art using different media that will make use of different materials including cloth, paper, wood and found objects.

ASSEMBLAGE:
The making of 3D art, often involves using found objects.

MIXED MEDIA COLLAGE:
This is an art form which involves combining different materials with paint to create a whole New artwork.

10 SGRAFFITO TECHNIQUE:
Used in **painting**, pottery, and glass. Consists of putting down a preliminary surface, covering it with another, and then scratching the top layer. The pattern or shape that emerges is of the colour below.

Art - Photo + Critique

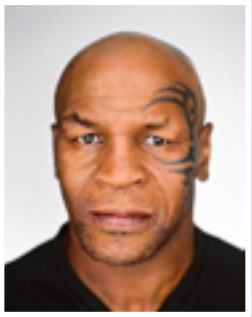
1. Types of Photography

Landscape

-**Shows space** within the world- think 'land' to remember, but can include sea
-Can make use of **water for reflections**
-Often **symmetrical**
-Usually **all in focus**

Still Life

-**Inanimate objects**
-**Simple background** such as fabrics, wood & plain surfaces
-**lighting** usually from the side, usually natural



Portraiture

-**Photo of a person** or a group of people
-**Plain background**
-**Face fills the frame**
-Focus usually on the **eyes**
-**Controlled lighting**
-**Can be posed or natural**

2. How to use the camera

Portrait mode
Camera needs to be this way up to take a portrait photograph

Shutter
The large round button. Hold half way down to focus, listen for the beep, then hold all the way down to take.

On/off button

Strap **ALWAYS** on wrist

3. Tips

-**Do not use flash** (especially indoors)
-Make sure your lighting is even
-Be still when you take your photograph to avoid camera shake
-Make sure your image is focused before you take it
-Use **simple backgrounds**; plain walls work well
-Get closer. **DO NOT use zoom**
-Don't rush
-**Take more than one photo**

Critiquing artwork
You need a specific vocabulary to comment on all the elements of art. Here are some to get you started.

Colour

Colour is very important. No matter what type of artwork colour helps define the piece and the artist. A lot of artwork can be determined on who did the work just by looking at the colours.

- Bold
- Vibrant
- Subtle
- Pale
- Earthy
- Naturalistic
- Harmonious
- Complementary

Shape

Art comes in various shapes whether it is a painting or a sculpture. All will contain shapes.

- Organic
- Curvaceous
- Geometric
- Angular
- Elongated

Texture

Texture can be actual (it exists) or visual (made to look like it exists). It is often used when referring to clothing, furniture and hair.

- Rough
- Fine
- Smooth
- Coarse
- Uneven

Movement

Movement is seen in every piece of art. Movement helps to create or define a piece of art.

- Swirling
- Flowing
- Dramatic
- Still

Tone

This will describe the light and dark areas in a piece of art.

- Subtle
- Contrasting
- Muted
- Dramatic

Contrast

This relates to the differences of the elements in an artwork.

- Dramatic
- Subtle
- Strong

Scale

This relates to the size of the work and the size of the objects in relation to each other.

- Large
- Small
- Intimate
- Miniature
- Monumental
- Distorted

Line

Line is art is similar to how a musician follows lines and creates expression using notes played for different lengths of time.

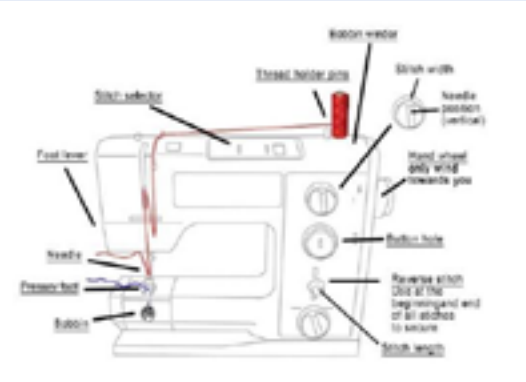
- Flowing
- Delicate
- Simple
- Bold
- Thick
- Thin

Art - Textiles and Clay

TEXTILES

1.SEWING MACHINE

A machine with a mechanically driven needle for sewing or stitching cloth.

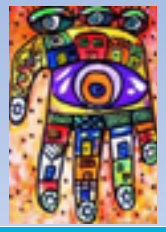


2. HEAT PRESS

A machine which uses heat and pressure, to transfer a design or a graphic on another surface, and to heat and fuse man-made materials.

3. BATIK

A method (originally used in Java) of producing coloured designs on textiles by dyeing them, having first applied wax to the parts to be left undyed.



Key Stage 3

Do not use ANY equipment before training

4. TAKE CARE

Electrical equipment
Tuck in ties
Tie hair back
No water near equipment
Be aware of sharp/hot objects
Electrical machines, take care with wires

Handstitching
Needles/Pins - Use a pin cushion
Pick fabric scraps off the floor
Scissors – pass safely

Clay
No eating/drinking whilst using clay
ALL equipment to be wiped with damp cloth
Wear an apron
Pass knives safely
Clear clay from floor

5. Couching

Applique

Stitching by hand

CLAY MAKING

6. Clay Equipment + Process

Fire = method of heating clay
Kiln = oven in which clay is fired
Bisque ware = clay that has been fired to 1000oC
Greenware = clay that has not been fired
Board, guide sticks, rolling pin for rolling out clay to an even level
Tools = for joining
Slip = clay glue
Knives = for cutting only

7. Greenware

Pinch pot

Coil pot

Bisqueware

Slab building

Glazing

Art - Project 1 - Insects






1.

Clay Equipment + Process

Fire = method of heating clay
Kiln = oven in which clay is fired
Bisque ware = clay that has been fired to 1000oC
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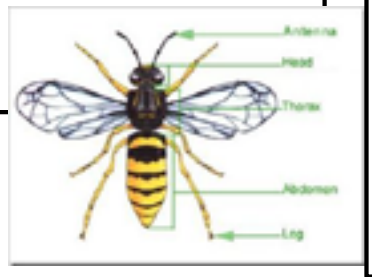


5.

Literacy focus

2.

Formal elements
Symmetry
Background
Midground
Foreground
Zentangle
Proportion
Monochrome
Relief
Rosalind Monks
Pattern
Monochrome

Artist focus

3.

Rosalind Monks
https://www.rosalindmonks.com/

Year 7 Project 1
INSECTS + BUGS
Autumn Term

4.

Genre focus

6.

Zentangles This is an easy-to-learn, relaxing, and fun way to create beautiful images by drawing structured patterns. We call these patterns, tangles. You create tangles with combinations of dots, lines, simple curves, S-curves and orbs. These simple shapes are the "Elemental Strokes" in all Zentangle art.

Art - Project 2 - Still Life + Cubism

STILL LIFE 1.
A painting or drawing of an arrangement of objects, typically including fruit, flowers and other inanimate objects.

https://wiki.kidzsearch.com/wiki/Still_life

3. Genre focus

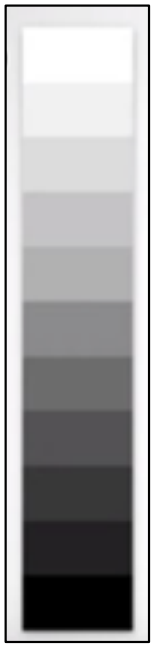
Cubism A revolutionary style of modern art developed by Pablo Picasso and Georges Braques in 1907. It aims to show all the possible viewpoints of a person or an object all at once. It is called Cubism because the items represented in the artworks look like they are made out of cubes and other geometrical shapes. The **Cubists** challenged conventional forms of representation, such as perspective, which had been the rule since the Italian Renaissance. Their aim was to develop a new way of seeing which reflected the modern age.

Literacy focus 2.

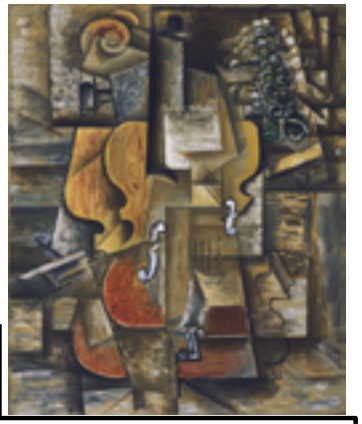
Cubism
Still Life
Texture
Relief
Still life
2D
3D
Subject
Background
Midground
Foreground
Shape
Primary colour
Secondary colour
Monochromatic colour scheme
Collage

Year 7 Project 2 Still life + Cubism

4.



Artist focus



5.

Pablo Picasso

Picasso was born in Malaga in Spain in 1881. Even as a child he was better at drawing than many adults. He could draw and paint just about anything, and in any style. He liked to experiment and try out new ideas, which is important if you are an artist, because the world is always changing. In 1904 when he was 23 he moved to Paris. This is because Paris was the capital of the avant-garde, which means cutting-edge and very cool. Picasso became friends with lots of artists and writers, like Georges Braque (who he invented cubism with) and a writer called Gertrude Stein (who collected art + wrote a cubist book). He became interested in art from other continents too. Pablo Picasso is one of the most famous artists of the twentieth-century because he helped us to see the world in new ways

https://www.coolkidfacts.com/pablo-picasso/ 6.



Year 7 - Dance



Performing skills

Term	Definition
Timing	moving to the beat of the music and/or your group.
Energy	performing actions with the full amount of effort required.
Movement memory	remembering all of the movements.
Accuracy	making the correct shapes with your body.
Facial expressions	showing the mood of the dance through your face.
Extensions	Fully extending the legs, toes, arms and fingertips
Focus	being fully committed to the performance by ignoring distractions.
Flexibility	being able to perform a wide range of movements with ease.

Tier 2 vocabulary

Warm up

Leadership

Audience

Impact

Re-cap

Reflection

Choreography skills

Term	Definition
Actions	the dance movements.
Levels	the different heights the dancer reaches whilst performing.
Formations	the positions or shape that the dancers stand in.
Directions	the direction of travel or the way that the dancers are facing.
Transitions	linking one movement to another.
Dynamics	how the actions are performed.
Unison	same movements at the same time.
Canon	same movements performed one after another.

Tier 3 vocabulary

Sequence

Choreography

Rehearsal

Venue

Styles

Street dance often uses energetic and sharp movements whilst maintaining a low centre of gravity.

Contemporary is an expressive style of dance which often uses floor work, lifts, contractions and falls.

Genre

Narrative dance tells a story and has characters.

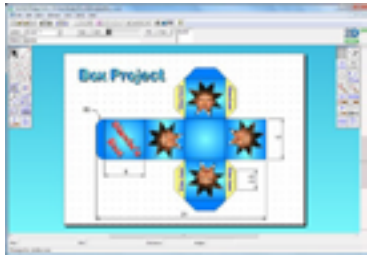
Abstract dance places importance on the movement rather than portraying a storyline.

Year 7 Design and Technology Knowledge Organiser Steady Hand Game

Computer-aided design (CAD)

Computer-aided design (CAD) is about using computers to assist you, the designer, during the design process. It can help in a number of ways, for example you can produce a design in a variety of materials and you can rotate a design through 360 degrees on any axis. The designs can be manipulated and mirrored with a simple click of the mouse. Any area of a design can be viewed at a rangeof magnifications.

Examples of 2D and 3d CAD software



2D CAD soft ware such as Techsoft 2d design can be used to design products such as packaging nets or panels for products. These can then be printed out or laser cut, then made into products.

3D CAD software such as Onshape or Tinkercad can be used to make 3d models of products. These can then be used as engineering drawings or made using 3d printers.

Input, process and output. Circuit components

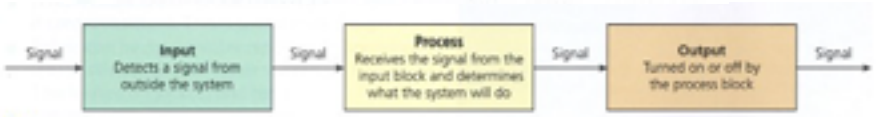
A system is a group of parts that work together to carry out a function. Almost all products that contain electronics and mechanical parts are systems. If you understand the blocks that make up a system and how these interact with each other, you will be able to design complex products quickly and easily.

Parts of a system

The simplest system has three systems blocks:

- The input block detects a signal from outside the system. For example, it could be a switch that detects movement or a sensor that detects light.
- The process block receives the signal from the input block and determines what the system will do. There are many different types of process block.
- The output block is turned on or off by the process block. Common output blocks produce light, movement or sound.

The systems blocks represent physical items – they might be individual components or groups of parts working as a sub-system. For example, the output block for an alarm could be a siren sub-system. The systems diagram for the alarm would include this sub-system as a single output block.



▲ A systems diagram

Year 7 Design and Technology Knowledge Organiser Steady Hand Game

Soldering

Soldering a process in which two or more items are joined together by melting and putting a filler metal (solder) into the joint, the filler metal having a lower melting point than the adjoining metal. Unlike welding, soldering does not involve melting the work pieces.

Method of soldering

The diagram below shows the correct steps you need to perform to solder an component into place

Soldering defects

The diagram below show the comment defects that can happen when you are soldering.

Polymers

Approximately 5 million tonnes of polymer are used in the UK each year, according to government figures. This equates to approximately 1.5 kg per person per week. It is estimated that between 50 and 60 per cent of this is used only once before disposal.

Types of polymer

Thermoforming	Thermoforming plastics are a group of plastics that can be heated and formed into a shape. This type of polymer can be heated and formed more than once
Thermosetting	Thermosetting plastics are a group of polymer can be heated, and then set into shape. These polymers can only be heated and set once.

▼ Some common thermoplastic polymers

Type	Properties	Typical uses
PMMA (poly(methyl methacrylate))	Known by the trade names Acrylic and Perspex Can be transparent Hard wearing and tough Softens between 85°C and 165°C	Plastic windows, bath tubs
HDPE (high-density polyethylene)	Strong and stiff Softens at about 130°C	Pipes, buckets, bowls
PET (polyethylene terephthalate)	High strength and good toughness Heat resistant Softens at about 80°C	Drinks bottles, food packaging
HIPS (high-impact polystyrene)	Reasonable strength and good toughness Softens at about 90°C	Packaging
PLA (polylactic acid)	Reasonable strength but can be brittle Softens between 70°C and 80°C	3D printing, children's toys

Year 7 Design and Technology TEXTILES / DOOR STOP Knowledge Organiser

Fibres —Natural and Synthetic

How textiles are made

Textile fabrics are made from **fibres**. Fibres are very fine, hair-like structures that are spun or twisted into **yarns**. These yarns are then woven or knitted together to create fabrics. Different fibres can be mixed together to create improved fabrics.

There are two main types of fibre:

- **Natural fibres** come from plants and animals.
- **Synthetic fibres** (manufactured fibres) come from oil, coal or petrochemicals.

▲ The cotton boll (green pod) contains the plant seeds. The cotton fibre is found inside the boll, protecting the seeds.

▼ Some common fibres

Type	Source	Properties	Uses
Cotton	Natural – cotton plant	Absorbent; strong; cool to wear; washable; flammable	Clothing; soft furnishings; bed sheets; sewing threads
Linen	Natural – flax plant	Absorbent; hard wearing; cool to wear; washable; flammable	Summer clothing, soft furnishings, table linen
Silk	Natural – silkworm	Absorbent; natural shine; comfortable to wear	Luxury clothing and lingerie; knitwear; soft furnishings
Wool	Natural – animals such as sheep or llamas	Warm; absorbent; strong; low flammability; shrinks easily	Coats; jackets; jumpers; socks; blankets; carpets
Polyester	Synthetic – petroleum, coal	Strong, flame resistant but still melts; poor absorbency	Versatile; has many uses throughout textiles
Polyamide (nylon)	Synthetic – petrochemicals	Strong; melts as it burns; good elasticity (will stretch and recover)	Clothing; carpets; rugs; seat belts; ropes; tents
Acrylic	Synthetic – petroleum	Strong; burns and melts; good insulator	Knitwear; knitted fabrics; fake fur; upholstery

Weaving and Knitting into Fabrics

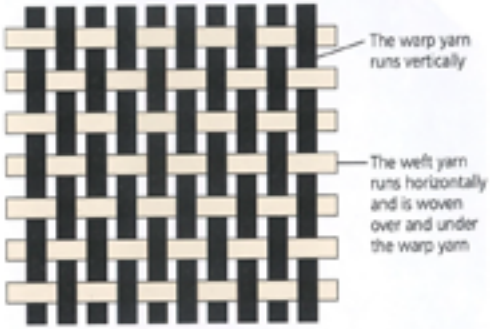
Types of material and their uses

There are two main methods for making textile fabrics: weaving and knitting.

Weaving

Woven fabrics are produced on a loom using **warp yarn** and **weft yarn**. The warp yarn is stronger and runs vertically, while the weft yarn is woven over and under the warp yarn to create the fabric. The most common type of weave is called plain weave and has many uses throughout textiles. Different types of woven fabric are created by changing the way that the yarns are woven or the thicknesses and texture of the yarns, and through the use of colours.

Weaving is the strongest method of fabric construction and is ideal for products that need a firm structure, including school shirts, smart trousers, bedlinen, kites, holdalls and school bags.



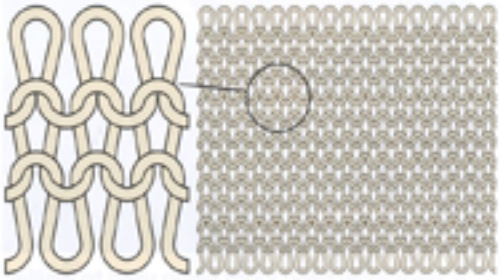
▲ A plain weave structure

Knitting

Knitted fabric is created by interlocking loops of yarn, which can be done either on a machine or by hand. The loops in the fabric trap air, making it warmer to wear, for example a knitted wool jumper will be comfortable and warm. Knitted fabrics can be stretched, but this can make them lose their shape.

There are two types of knitted fabric:

- Warp knitting uses several yarns that interlink vertically. These can be cut into shapes to make textile products.
- Weft knitting uses one yarn that runs horizontally. The fabric is built up row by row, with each loop interlocking with the row below. Hand knitting is done this way. This type of knitting will unravel if it is cut.



▲ Weft knitting

Year 7 Design and Technology TEXTILES / DOOR STOP Knowledge Organiser

Setting up the Sewing Machine Step by Step

Sewing machines

Most sewing machines have a variety of functions and stitches to complete the different processes that are needed to make a textile product. They have attachments, such as a special 'foot' for inserting a zip. Computerised sewing machines can be used to embroider original designs. An overlocker is a specialist machine that trims and sews the edge of the fabric at the same time. This is the neatest and most professional method of joining fabrics and neatening a seam or edge.

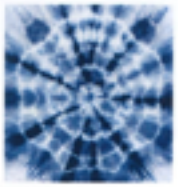
Follow the direction of the red thread on the diagram on how to correctly thread the sewing machine.

SECTION 1. ESSENTIAL PARTS

Name of Parts

Embellishments and surface decoration techniques

▼ Decorative techniques

Tie-dye		The colour of fabric can be changed by dyeing. The tie-dye method involves folding, twisting, pleating or crumpling the fabric and tying it with string or rubber bands. The fabric is then placed in a dye bath. The tied areas do not absorb the dye and this forms a pattern.
Appliqué		Appliqué is a method of stitching fabric pieces onto a base fabric to create a design. Different stitches can be used to hold the fabric pieces in place. Complex designs can be created by using several pieces of fabric.

▼ Decorative techniques

Fabric paints		Fabric paints can be applied directly to fabric. Once the paint is dry, it needs to be fixed using a hot iron. Fabric felt pens and pastels can be used in the same way.
Embroidery		Embroidery can be done by hand or machine. Computerised machines can stitch motifs and lettering.
Decorations		Decorations like beads, sequins, diamantes or pearls can be sewn onto fabric.

Year 7 Design and Technology Knowledge Organiser Picture Frame

Health and Safety 15 rules of the workshop

Why do you think workshop Safety Rules are important?
If everyone follows workshop rules, everyone will be safe and learn how to use tools and equipment properly and efficiently.

Always **listen carefully t**o the teacher and follow instructions.

Do not run / rush in the workshop.

Know where the **emergency stop buttons** are positioned in the workshop.

Always wear an apron.

When attempting practical work, all stools should be put away.

Bags should be stored away, during practical sessions in the workshop.

Do not use a machine, if you have not been shown how to operate it safely, by your teacher.

Aways be patient, never rush practical work.

Always use guards, when operating machines.

Keep hands / hair and clothing away from moving/rotating parts of machinery.

Use hand tools carefully, keeping both hands behind the cutting edge.

Report any damage / faults to machines/equipment. Damage or a faulty part, could cause an accident.

Keep your workbench tidy. When you have finished with a tool / piece of equipment, return it to its storage cupboard / rack.

Never distract another pupil, when they are working on a machine or using tools / equipment.

Wear good strong shoes. Training shoes are not suitable.

Tools and Equipment

Tool	Image	Use
Coping Saw		Cut sheet material s to irregular shapes. This saw can cope with cutting curves.
Tenon Saw		Cut timber in a straight line.
Try Square		Use to mark out perpendicular waste lines ready for cutting accurate 90
Workbench Vice		For Holding and securing materials in place whilst cutting, shaping and forming.
Disc Sander		For fine finishing, removing waste material to the waste line.

Year 7 Design and Technology Knowledge Organiser Picture Frame

Timber Classificatioon

Hardwoods

Hardwoods come from Deciduous trees. They loose their leaves each winter and are slower growing than softwoods. This makes for higher quality wood as the grain is closer **(denser)** together than softwood making it harder wearing. It is also harder to machine.

Examples, OAK BEECH ASH

Softwoods

Softwoods come from Coniferous trees. They keep their leaves all year round and take only 30 years to mature so are considered fast growing trees. Their grain is more open and so the wood is softer and less hardwearing than Hardwood. They are cheaper and easier to machine.

Examples, PINE SPRUCE CEDAR

Hardwood

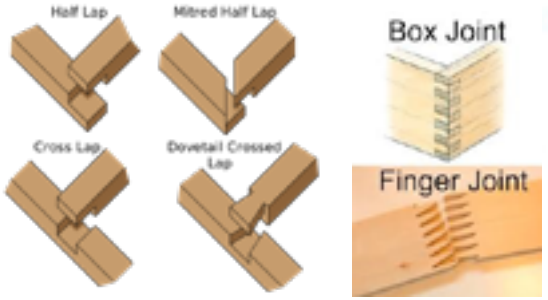
▼ The properties and uses of selected hardwoods

Type	Characteristic properties	Typical uses
Oak	Very strong and hard Light brown colour	High-quality furniture
Mahogany	Fairly strong and durable Pink to reddish-brown colour	High-quality furniture
Beech	Hard and tough, but easy to work with Light brown with darker brown flecks	Wooden toys, household items, furniture
Ash	Tough and flexible Light creamy-brown colour	Tool handles, sports equipment
Balsa	Soft – can be marked using a finger Off-white to tan colour	Modelling

Softwoods

▼ The properties and uses of selected softwoods

Type	Characteristic properties	Typical uses
Pine	Fairly strong, easy to work with Light brown or yellowish colour	Interior structures in buildings, furniture
Spruce	Strong and hard, but low resistance to decay Yellowish-white colour	Wooden aircraft frames



Sources of timber

Timber is made from trees that are chopped down and then cut into planks in a sawmill. The wood may be seasoned after cutting, which means that it is dried before use to remove moisture. Seasoning makes wood less likely to distort or warp.

Timber can be a renewable resource if grown in well-managed forests. Responsible management includes planting new trees as older trees are cut down. Timber grown this way can be identified by the Forest Stewardship Council® (FSC®) 100% claim or label.

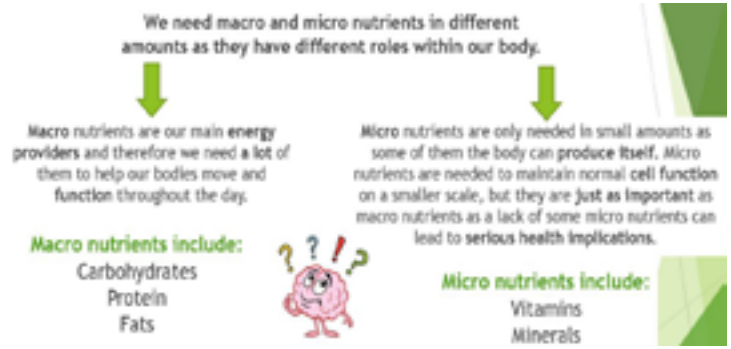
FSC

The Forest Stewardship Council symbol

Knowledge Organiser – Year 7 Food Technology Fruits and Vegetable-

Nutrients

Carbohydrates give the body **energy.**
Protein provides **growth and repair of cells.**
Fats are needed for **warmth, energy, hormone production and protection.**
Vitamins and minerals help to **maintain normal cell function and maintain general health.**



Personal Hygiene

- Wash your hands before handling any food
- Put your hair up
- Wear a clean apron
- Use a blue plaster if you have a cut
- Don't cough or sneeze on the food

Food Hygiene

- Clean work surfaces
- Keep work area clean and tidy
- Keep raw and cooked foods apart to prevent cross – contamination.
- Use a red chopping board for meat and a green board for fruit and vegetables

- Wash up correctly
  - Hot water, changed frequently
  - Washing up liquid
  - Cloth for washing
  - Clean tea towel for drying

Name of Equipment	scales	Measuring jug	Measuring spoons and cups
Used to Measure...	Solids	liquids	Liquids and solids
Unit (e.g. grams, etc.)	g and oz	ml, oz, g, pints	ml + spoons + cups

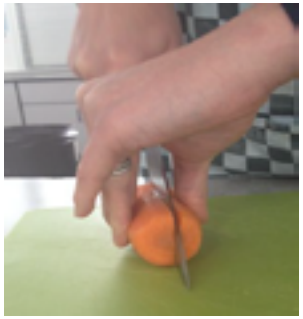
How should you wash up at the end of each lesson?

Use a dish cloth and scourer in warm, soapy water to wash up all your equipment. Place it on a clean sink area and then use a tea towel to dry it up.
The sink should be left clean and dry. No food scraps in the bottom of the sink.
Tea towel and dish cloth are placed in washing basket at the end of the lesson.

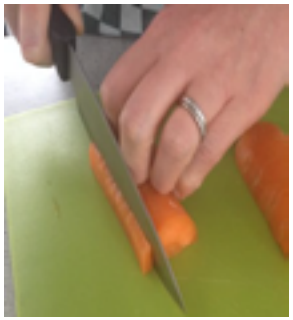
EHO's also cover:

Safe Cutting Techniques

Bridge Hold



Claw Grip

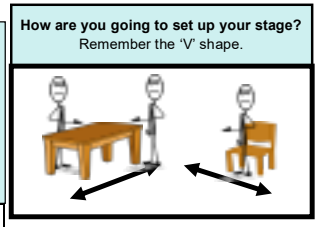


Year 7 - Drama - Term 3

Rehearsal Tasks

What you need to do.

Casting	Deciding which actor will play which character.
Highlighting	Highlighting your lines helps you find them quickly while you're rehearsing. Do not highlight your **name** or **stage directions**, only your **dialogue**.
Read Through	Sit in a circle and read the play out loud, playing your own part.
Staging	Deciding how you will set up your stage.
Blocking	Deciding where you will stand on stage.
Rehearsing	Practicing how you will perform the scene.
Dress Rehearsal	The final rehearsal before the performance. You treat this as if it were a performance - you don't stop, you cover any mistake and you don't use scripts.



Rehearsal Schedule:

What you're going to do.
When you're going to do it.

Week 1	What are you going to do? Choose the play? Cast it? Highlight? Read Through?
Week 2	What are you going to do? Staging & Blocking?
Week 3	What are you going to do? Rehearse it?
Week 4	What are you going to do? Dress Rehearsal?
Week 5	What are you going to do? Performance?

During Rehearsals:

When you are directing other actors, there are 6 key questions you should ask:

Are they all **'open'** to the audience (making the 'V' shape)?
Are they **moving** like their characters?
Are they **speaking like** their characters?
Are they **speaking loudly** enough?
Are they **concentrating** as they perform / rehearse?
Does their performance **make sense** without them having to explain it to you?

After the Performance:

Evaluation Skills

Term	Definition
Evaluation	Working out what was good about the performance and what could have been better.
Strength	What was good about the performance.
Weakness	What could have been better about the performance.

When you make a comment about a strength or a weakness you must always do these three things:

→	**Describe** the strength/weakness.
→	Give an **example** of the strength/weakness.
→	**Explain** why it made the performance better/worse.

English Department

YEAR 7

Summer Term – Morphology

ROOT MORPHEMES - LATIN ORIGIN

Root morphemes are 'chunks' of words that carry a certain 'flavour' of meaning. These roots appear in many different words, and they always signal the same meaning. If you can recognize the root in a word that you don't know, this will help you work out what the word means.

Root morpheme	Meaning
spect	to look/see
rupt	to break
port	to carry
struct	to build
grad/gress	to step
flec/flex	to bend
vert/vers	to turn
tract	to pull
capt/cept	to take
ceed/cede	to go
junct	to join
ject	to launch/throw
dict	to speak
fract	to shatter
duc	to lead

ROOT MORPHEMES - GREEK ORIGIN

Root morpheme	Meaning
graph	to write/draw
photo	light
phon	sound
morph	to form/shape
chron	time
dem	people
anthrop	human

DERIVATIONAL SUFFIXES

Derivational suffixes can change words from one type to another. A suffix that forms a noun is called a **nominal suffix**; a suffix that forms a verb is called a **verbal suffix**; a suffix that forms an adjective is called an **adjectival suffix**; and a suffix that forms an adverb is called an **adverbial suffix**.

INFLECTION & DERIVATION

Prefixes and suffixes alter the meanings of words in two ways: inflection and derivation.

INFLECTIONAL MORPHEMES – In the English language, all inflectional morphemes are suffixes. They alter how a word functions, but they do not alter the meaning or the word type. There are eight of them:

-s or *–es* turn a word into a plural.

-s' or *-'s* turns a noun into a possessive (showing ownership).

-s is added to verbs to indicate the third person singular..

-ed indicates verbs in the past tense.

-ing indicates the present participle, meaning an action that is ongoing.

-en indicates a form of past participle.

-er is added to adjectives to form a comparison.

-est is added to adjectives to create a superlative.

DERIVATIONAL MORPHEMES – These can be prefixes or suffixes. They either change a word's meaning, or they change one word type into another, e.g. a noun into an adjective. There are many derivational morphemes in English.

PREFIXES - LATIN ORIGIN

*These are morphemes added to the **beginnings** of words in order to alter the meaning in some way.*

Prefix	Meaning
de-	away/remove
dis-	apart/opposite
pre-	before
con-	with
inter-	between
intro-	inwards
ex/e-	out of
pro-	forwards
sub-	below
re-	back/again
trans-	across

PREFIXES - GREEK ORIGIN

*These are morphemes added to the **beginnings** of words in order to alter the meaning in some way.*

Prefix	Meaning
geo-	relating to Earth
bio-	relating to life
tele-	far off/distant
anti-	against
auto-	self
mono-	one
poly-	many

PREFIXES – ANGLO-SAXON ORIGIN

*These are morphemes added to the **beginnings** of words in order to alter the meaning in some way.*

Prefix	Meaning
un-	opposite
mis-	bad/wrong
be-	to make/cause

VERB INFINITIVES

1-ETRE = to be
2- AVOIR = to have
3- FAIRE = to do
4- ALLER = to go
5- JOUER = to play
6- REGARDER = to watch

PRESENT TENSE VERBS WITH "JE"

1- je suis = I am
2- j'ai = I have
3- Je fais = I do
4- je vais = I go
5- je joue = I play
6- je regarde = I watch

CONNECTIVES AND INTENSIFIERS

1- d'abord = firstly
2- puis / ensuite = then
3- enfin = finally
4- et = and / ou = or
5- mais = but
6- cependant = however
7- quand = when

1- très = very
2- assez = quite
3- un peu = a little

French y7

Core Language

TIME MARKERS

1- quelquefois = sometimes
2- tous les jours = everyday
3- une fois par semaine = once a week
4- souvent = often
5- tout le temps = all the time

OPINIONS

1- j'aime = I like
2- je n'aime pas = I don't like
3- j'adore = I love
4- Je déteste = I hate
5- parce-que c'est= because it is

génial = great
Intéressant = interesting
drôle = fun
ennuyeux = boring
nul = rubbish

Basics in French

Greetings

Bonjour / salut = hello / hi
Au revoir = good bye
A bientôt = see you soon
Comment ça va? = how are you
Ca va (bien) = I'm good
Ca va mal = I'm not good
Bof / comme-ci comme ça = so so
Comment tu t'appelles = What's your name?
Je m'appelle… = My name is…

Days and months

Mon anniversaire c'est le… = my birthday is…

Lundi = Monday
Mardi = Tuesday
Mercredi = Wednesday
Jeudi = Thursday
Vendredi = Friday
Samedi = Saturday
Dimanche = Sunday
Janvier = January
Février = February
Mars = March
Avril= April
Mai = May
Juin = June
Jullet = July
Août = august
Septembre = September
Novembre = November
Décembre = December

Family

Mon père s'appelle… = my dad is called…
Ma mère s'appelle .. = my mum is called…
Mon beau-père s'appelle… = my stepdad is called…
Ma belle-mère s'appelle… = My stepmum is called…
Mon frère s'appelle… = my brother is called..
Ma soeur s'appelle… = my sister is called…
Mes frères s'appellent… = my brothers are called…
Mes soeurs s'appellent… = my sisters are called…

Age and numbers

Quel âge as-tu? = How old are you?
J'ai…. ans = I am…. years old.

1 = un
2= deux
3= trois
4= quatre
5= cinq
6= six
7= sept
8= huit
9= neuf
10= dix
11= onze
12= douze
13= treize
14= quatorze
15= quinze
16= seize
17= dix-sept
18= dix-huit
19= dix-neuf
20= vingt
21= vingt et un
22= vingt deux
30= trente
31= trente et un

Colours and pets

Ma couleur préférée c'est le..= my favourite colour is…

bleu = blue
vert = green
jaune = yellow
rouge = red
orange = orange
rose= pink
violet = purple
marron / brun = brown
blanc = white
noir = black

J'ai = I have
un chien = a dog
un chat = a cat
un lapin= a rabbit
un poisson = a fish
un oiseau= a bird
un cheval = a horse
un hamster
une souris = a mouse
qui s'appelle = called..

Descriptions

J'ai les yeux bleus / verts/ marron / noirs = I have blue / green/ brown/ black eyes
J'ai les cheveux blonds / bruns / roux / noirs = I have blond / brown / red / black hair
Je suis = I am
drôle = funny
intelligent(e) = clever
paresseux / paresseuse = lazy
timide = shy
sportif / sportive = sporty

FRENCH Y7- TOPIC 3 – MES PASSETEMPS

Le sport • Sport

Je joue ...	*I play ...*
au basket	*basketball*
au billard	*billiards/snooker*
au foot(ball)	*football*
au hockey	*hockey*
au rugby	*rugby*
au tennis	*tennis*
au tennis de table/ au ping-pong	*table tennis*
au volleyball	*volleyball*
à la pétanque/aux boules	*boules*
sur la Wii	*on the Wii*
Tu es sportif/sportive?	*Are you sporty?*
Je suis (assez) sportif/ sportive.	*I'm (quite) sporty.*
Je ne suis pas (très) sportif/sportive.	*I'm not (very) sporty.*
Mon sportif/Ma sportive préféré(e) est ...	*My favourite sportsman/ sportswoman is ...*

Qu'est-ce que tu fais? • What do you do?

Je fais du judo.	*I do judo.*
Je fais du parkour.	*I do parkour.*
Je fais du patin à glace.	*I go ice-skating.*
Je fais du roller.	*I go roller-skating.*
Je fais du skate.	*I go skateboarding.*
Je fais du vélo.	*I go cycling.*
Je fais de la danse.	*I do dance.*
Je fais de la gymnastique	*I do gymnastics.*
Je fais de la natation.	*I go swimming.*
Je fais de l'équitation.	*I go horse-riding*
Je fais des promenades.	*I go for walks.*

Quand? • When?

en été	*in summer*
en hiver	*in winter*
quand il fait beau	*when it's good weather*
quand il fait chaud	*when it's hot*
quand il pleut	*when it rains*
quand il fait froid	*when it's cold*

Qu'est-ce que tu aimes faire? • What do you like doing?

le soir/le weekend	*in the evenings/ at the weekends*
le samedi matin/ après-midi/soir	*on Saturday mornings/ afternoons/evenings*
J'aime ...	*I like ...*
... retrouver mes amis en ville.	*... meeting my friends in town.*
... regarder la télévision (la télé).	*... watching TV.*
... jouer sur ma PlayStation.	*... playing on my PlayStation.*
... écouter de la musique.	*... listening to music.*
... faire les magasins.	*... going shopping.*
... faire du sport.	*... doing sport.*
... jouer au football.	*... playing football.*
... traîner avec mes copains.	*... hanging out with my mates.*
... téléphoner à mes copines.	*... phoning my mates.*

Les ordinateurs et les portables • Computers and mobile phones

Qu'est-ce que tu fais ...	*What do you do/are you doing ...*
avec ton ordinateur?	*on your computer?*
avec ton portable?	*on your mobile phone?*
Je joue.	*I play/I'm playing games.*
Je surfe sur Internet.	*I surf/I'm surfing the net.*
Je tchatte sur MSN.	*I chat/I'm chatting on MSN.*
Je regarde des clips vidéo.	*I watch/I'm watching video clips.*
Je télécharge de la musique.	*I download/I'm downloading music.*
J'envoie des SMS.	*I text/I'm texting.*
Je parle avec mes ami(e)s/ mes copains/ mes copines.	*I talk/I'm talking to my friends/mates.*
J'envoie des e-mails.	*I send/I'm sending e-mails.*

La fréquence • Frequency

quelquefois	*sometimes*
souvent	*often*
tous les jours	*every day*
tous les soirs	*every evening*
tout le temps	*all the time*
de temps en temps	*from time to time*
une fois par semaine	*once a week*
deux fois par semaine	*twice a week*

PRESENT of –ER verbs

To form the present of -er verbs,
1- we chop off the ER
2- we add the endings-

Je……-e
Tu……- es
Il……- e
Elle……- e
On……-e
Nous……-ons
Vous……-ez
Ils……-ent
Elles……-ent

Je joue
Tu joues
Il joue
Elle joue
On joue
Nous jouons
Vous jouez
Ils jouent
Elles jouent

Je joue au / à la
Je fais du / de la

FRENCH Y7- TOPIC 4 – MES VACANCES

Les vacances en famille • Family holidays

Tous les ans ...	*Every year ...*
Normalement ...	*Normally ...*
nous allons ...	*we go ...*
en France	*to France*
en Espagne	*to Spain*
en Grèce	*to Greece*
en Italie	*to Italy*
aux États-Unis	*to the USA*
au Portugal	*to Portugal*
à la mer	*to the seaside*
à la montagne	*to the mountains*
à la campagne	*to the countryside*
Nous allons au restaurant.	*We go to a restaurant.*
Nous visitons des monuments.	*We visit monuments.*
Nous faisons du camping.	*We go camping.*
Nous faisons de la rando.	*We go hiking.*
Nous faisons de la natation.	*We go swimming.*
Nous faisons des activités sportives.	*We do sports activities.*
Nous restons en France.	*We stay in France.*

Au café • At the café

J'ai faim et j'ai soif.	*I'm hungry and I'm thirsty.*
Vous désirez?	*What would you like?*
Je voudrais ...	*I'd like ...*
un café	*a black coffee*
un café-crème	*a white coffee*
un thé (au lait/au citron)	*a tea (with milk/lemon)*
un chocolat chaud	*a hot chocolate*
un coca	*a cola*
un jus d'orange	*an orange juice*
un Orangina	*an Orangina*
une limonade	*a lemonade*
un sandwich au fromage	*a cheese sandwich*
un sandwich au jambon	*a ham sandwich*
un croquemonsieur	*a toasted cheese and ham sandwich*
une crêpe	*a pancake*

Quels sont tes rêves? • What are your dreams?

Je voudrais aller ...	*I'd like to go ...*
à Paris	*to Paris*
en Australie	*to Australia*
au Canada	*to Canada*
aux États-Unis	*to the USA*
Je voudrais ...	*I'd like ...*
être footballeur professionnel	*to be a professional football player (masculine)*
être danseuse professionnelle	*to be a professional dancer (feminine)*
habiter dans une grande maison	*to live in a big house*
avoir une voiture très cool	*to have a really cool car*
faire le tour du monde	*to travel around the world*
rencontrer mon acteur/ mon actrice préféré(e)	*to meet my favourite actor/actress*

ALLER

Je	vais
Tu	vas
Il / elle / on	va
Nous	allons
Vous	allez
Ils / elles	vont

Je me prépare • I get myself ready

Je me douche.	*I have a shower.*
Je me fais une crête.	*I make my hair spiky.*
Je me parfume.	*I put on perfume/ aftershave.*
Je m'habille.	*I get dressed.*
Je me brosse les cheveux.	*I brush my hair.*
Je me lave les dents.	*I clean my teeth.*
Je me regarde dans la glace.	*I look in the mirror.*
Je me rase.	*I shave.*
Je me maquille.	*I put on make-up.*

Qu'est-ce que tu vas faire? • What are you going to do?

Pendant les vacances ...	*During the holidays ...*
je vais ...	*I'm going to ...*
aller à la pêche	*go fishing*
danser	*dance*
faire de l'accrobranche	*do treetop adventures*
faire du karaoké	*do karaoke*
faire de la voile	*go sailing*
faire de la planche à voile	*go windsurfing*
nager dans la mer	*swim in the sea*
rester au lit	*stay in bed*
retrouver mes copains/ copines	*get together with with my mates*

NEAR FUTURE

To form the future of -er verbs,
1- we use ALLER
Je vais
Tu vas
Il va
Elle va
On va
Nous allons
Vous allez
Ils vont
Elles vont
2- We use the infinitive of the verb in ER.

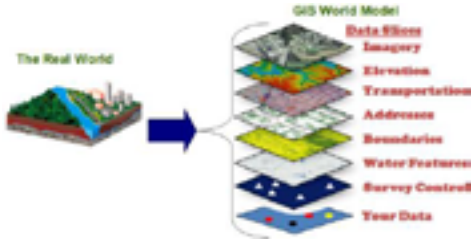
Year 7 Geography Knowledge Organiser Term 5 : UK

Geography of the UK

Landscapes are the visible features which make up the surface of the land. They are where we live, and our lives affect them. Each landscape is created by an interaction of physical and human factors.

GIS

GIS stands for Geographical Information Systems. This is when information is added onto a map using layers. An example is Google Maps.



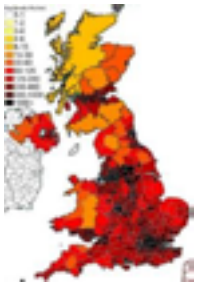
Upland vs Lowland

Igneous and metamorphic rocks were formed during tectonic activity. They are more resistant to physical processes and tend to form upland areas.
Scotland - The Northwest Highlands, the Cairngorm Mountains
England - The Pennines, Lake District
Wales - Snowdonia and the Brecon Beacons.

Lowland landscapes are formed from sedimentary rocks which are less resistant to physical processes and form lowland landscapes.
The south and east of England are generally low-lying: The Fens and East Anglia.

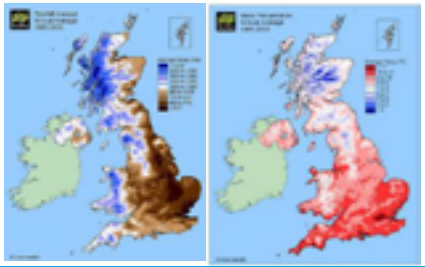
Population Density

The total population of the United Kingdom is around 66,650,000. Its overall population density is 259 people per square kilometre. Almost one-third of the population lives in England's southeast, which is predominantly urban and suburban, with about 9,000,000 in the capital city of London.



Climate of the UK

We have warm summers and cool winters. The overall climate in England is called temperate maritime. This means that it is mild with temperatures not much lower than 0°C in winter and not much higher than 32°C in summer.



Speak Like a Geographer

Geographical Information System (GIS), Climate, Landscape, Weather, Weathering, Migration, Variables, Internal migration, International, Uplands, Lowlands, Local, Regional, Global, Scale, Relief

Fieldwork

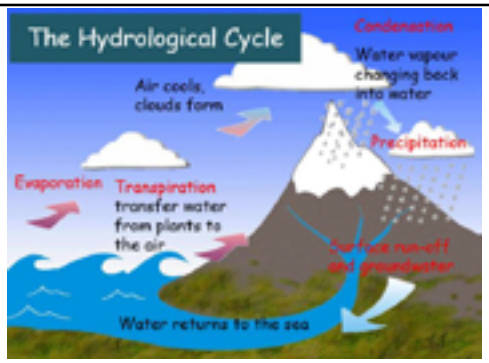
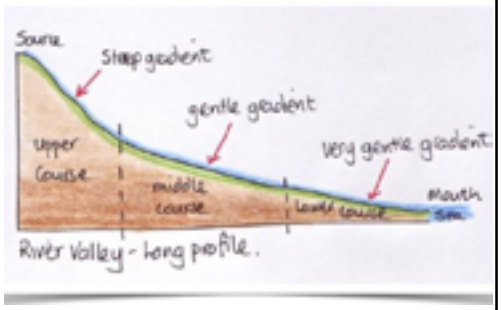
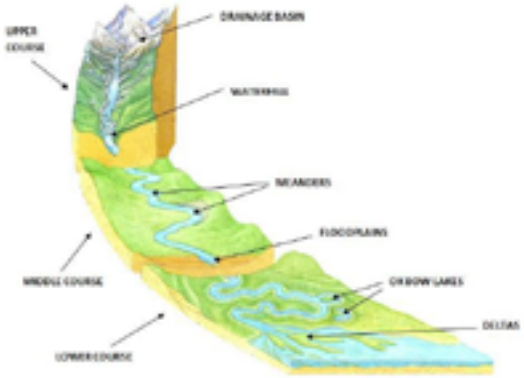
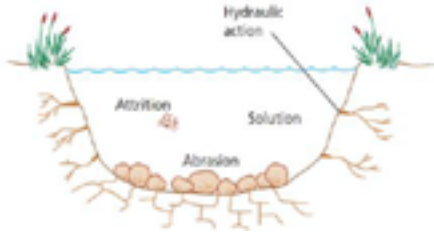
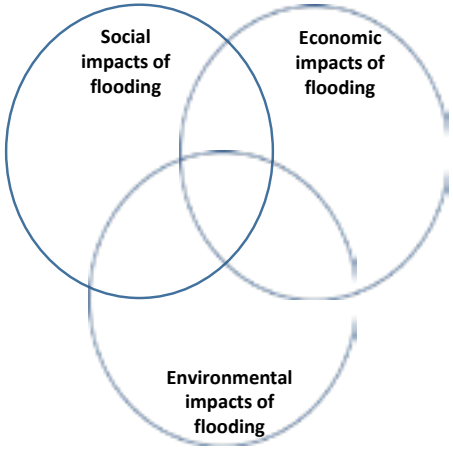
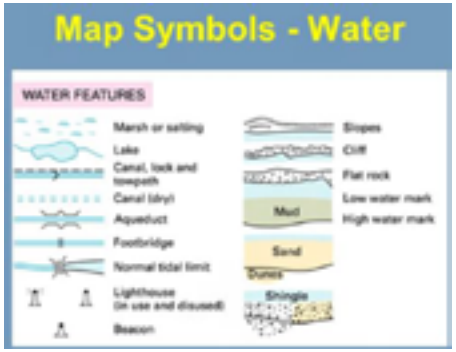
Skills

Choropleth Map: A map which uses differences in shading, colouring, or the placing of symbols within areas to indicate the average values of a particular quantity in those areas.

Advantages:
- Visually effective - can see a large amount of information and general patterns

Disadvantages:
- Map assumes the whole region/area has the same value, but there could be variations

Year 7 Geography Knowledge Organiser Term 6: Rivers

The Hydrological Cycle	The River Profile	River Landforms	Types of Erosion
		*how is each landform created? 	Hydraulic Action Attrition Abrasion Solution 
Impacts of Flooding	**Speak Like a Geographer**	**Fieldwork**	**Skills**
	River, Mouth, Source, Confluence, Tributary, Meanders, Erosion, Deposition, Sediment, River Landforms, Attrition, Abrasion, Hydraulic Action, Flood Plain, Slip off Slope, River Cliff, Ox-bow lake, Gorge, Delta, Waterfall		

Year 7 History: Summer term

Part 1. What caused the English Civil War?

Personality of Charles I

Charles believed in the **Divine Right of Kings**. He believed that his power came from God and therefore should not be challenged by Parliament.

Religion

Charles angered Protestant England by marrying the **French Catholic, Henrietta Maria**. Under the influence of his wife and Archbishop Laud, Charles began to make English churches more Catholic in appearance. Riots broke out when **a Catholic style Prayer Book** was introduced to Scotland in 1637. Scottish army invades England,(The Bishops War).

Money

Charles used a private '**Court of the Star Chamber**' to punish his opponents. When Parliament complained in 1629, he dismissed them. Until 1640, he ruled without Parliament. To raise money he used old laws such as **Ship Money**, which was a tax collected from coastal towns to pay for the navy. In 1635 Charles made inland counties pay it too.

Clashes with Parliament

When Charles re-called Parliament to ask for more money they instead gave him a list of criticisms and demands (The **Grand Remonstrance**). Angered, Charles went to Parliament with soldiers to try to arrest 5 MPS. Parliament refused to budge so Charles declared war.

Part 2 Was Naseby the most important battlefield in English History?

Significance criteria used:
1. Decisive victory for one side.
2. Casualties
3. Changed course of History

Battles studied:
Hastings: 1066
Bosworth: 1485
Naseby: 1645
Boyne: 1690
Culloden: 1746

Part 4: Impact of the Civil War

On 30th January 1649 Charles I was executed. He was beheaded in London.

For 11 years (the **Interregnum**) England was ruled by Parliament. Under the rule of Parliament England became a strongly Puritan country. Christmas was outlawed, pubs and theatres were closed.

Cromwell fought a violent and bloody campaign in Ireland.

Following the death of Oliver Cromwell, the son of Charles I was invited to become King. He was crowned King Charles II in 1660. This was known as the **Restoration** of the Monarchy.

Part 3. Was the World really turned upside down?

Divine Right of Kings
The execution of King Charles challenged the idea that monarchs were chosen by God. This was an important step in advancing the power of Parliament and making England more democratic.

Diggers
In 1649 a group led by Gerald Winstanley seized land at St George's Hill and began to farm it. They claimed that all land belonged to the people and should be shared in common. They were removed by the army.

Levellers
This group within the Parliamentary New Model Army tried to push for further political reforms. Their leaders were executed when the Levellers refused to fight in Ireland (without being paid).

Witch craze
The Civil War provided an opportunity for Matthew Hopkins (Witch-finder General) to accuse people of witchcraft. Nineteen people were executed.

Key words: Tier 2

Monarch, battle, Civil War, economic, religious, government, taxes, describe, account, judgement, conclusion, hypothesis, witchcraft, casualties, decisive, religious, economic, Parliament, political, decisive, democratic

Key words: Tier 3

Protestant, Catholic, tyrant, Chronology, Significance, interpretation, causation, evaluate, narrative, explain, analyse, continuity, change, Levellers, Divine Right of Kings, Restoration, Interregnum.

Year 7 ICT Knowledge Organiser – Computational thinking, programming and Esafety

Computational thinking allows us to take a complex problem, understand what it is and develop solutions. These can be presented in a way that a computer, a human, or both, can understand.

Key vocabulary	
Programming	The process of writing computer programs
Code	The instructions that a program users
Variable	A value that will change whilst the program is executed

There are four key techniques (cornerstones) to computational thinking:

1. **Decomposition** - breaking down a complex problem or system into smaller, more manageable parts
2. **Pattern recognition** – looking for similarities among and within problems
3. **Abstraction** – focusing on the important information only, ignoring irrelevant detail
4. **Algorithms** - developing a step-by-step solution to the problem, or the rules to follow to solve the problem

Key Vocabulary

Personal Data – data that can be used to identify an individual. This could be Name, date of birth or home address.

Online threats and wellbeing

Cyber Bulling – Bullying online

Social Networking – Communicating online

Online Reputation – The reputation you build for yourself from your online digital footprint

Resilience and screen time – Reduce your screen time and never compare yourselves to others online.

Who to contact if you have any concerns

- Parent or Guardian
- Teacher
- Another adult you trust (Aunt or Uncle, Grandparent, dinner lady etc.)

ChildLine 0800 1111

THINK U KNOW

Knowledge organiser Year 7:
Summer 1 Topic 1
Expressions and Formulae

Key Concept

A formula is a rule that uses mathematical symbols.

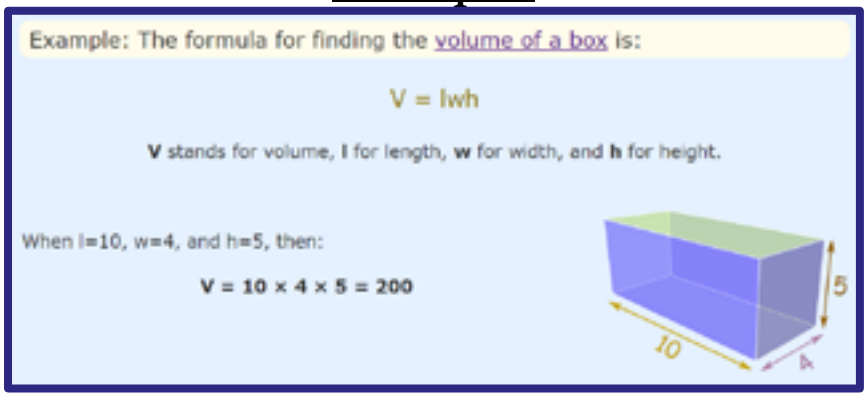
Example: $A = \pi r^2$ **Area of a Circle**

An expression is a group of mathematical symbols representing a number or quantity.

Example: $3xy + 4x$

Expression

Examples



Numbers, symbols and operators (such as + and ×) grouped together that show the value of something.

Examples:

- 2 + 3 is an expression
- 3 – x/2 is also an expression

Key Words

Formulae
Expressions
Terms
Operations

Tip

Formulae always contain different variables (symbols) with an "=" sign.
Expressions never have an equals sign but do contain operations such as +, - x or ÷

Knowledge organiser Year 7
Summer 1 Topic 2:
Tables and Averages

Key Words

Discrete data can only take particular values.

Averages

Mean -

$$\frac{\text{sum of the terms}}{\text{number of terms}}$$

Mode - occurs the most

Median - middle of data once ordered

Tip

The Mean average requires the most work

It is mean!

Examples

The table gives information about the numbers of badges gained by the girls in a Guide group.

a) Write down the mode.
b) Find the range.
c) Work out the median.
d) Calculate the mean.

Number of badges	Frequency	
0	2	← First 2
1	8	← Up to 10
2	4	← Up to 14
3	3	
4	5	
5	3	

a) 1
b) 5 - 0 = 5
c) 25 Guides altogether
$\frac{25+1}{2}$ = 13th Guide
13th Guide has 2 badges

Mode = most frequent

Range = biggest - smallest

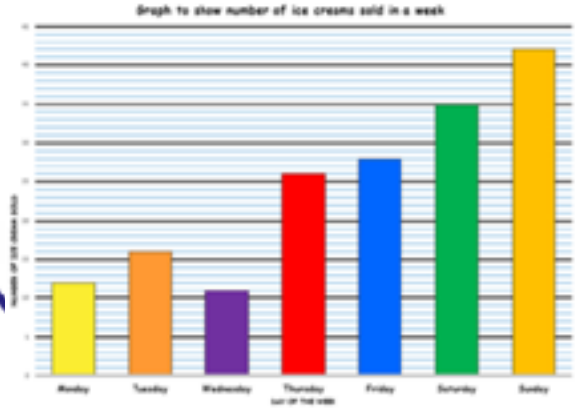
Median = middle

Mean = mathematical average (add, then divide)

Total number of badges ÷ total number of Guides

Bar graphs

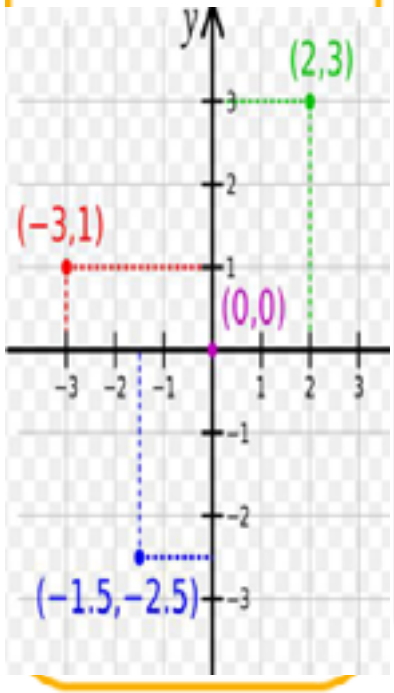
Reading data and gathering information



FRUIT	NUMBER OF CHILDREN WHO CHOSE IT
PEAR	
WATERMELON	
ORANGE	
APPLE	
BANANA	

Knowledge organiser Year 7 Summer 1 Topic 3: Co-ordinates and Linear graphs

Key Concept



Key Words

Co-ordinate: A pair of numbers which describe the position on a grid.
Intercept: Where two graphs cross.
Gradient: This describes the steepness of the line.
y-intercept: Where the graph crosses the y-axis.
Linear: A linear graph is a straight line.

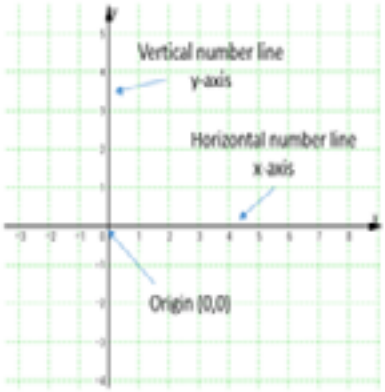
Tip

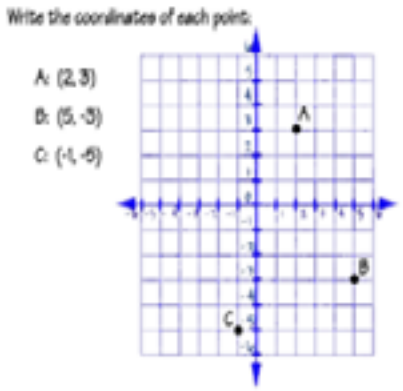
Parallel lines have the same gradient.

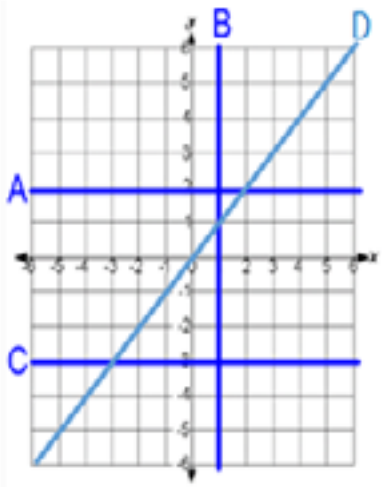
Formula

$$Gradient = \frac{difference\ in\ y's}{difference\ in\ x's}$$

Examples







A: y = 2 B: x = 1
C: y = -3 D: y = x

Draw the graph of y = 2x - 1

X	-2	-1	0	1	2
Y	-5	-3	-1	1	3

Notice this graph has a gradient of 2 and a y-intercept of -1.

Knowledge organiser Year 7
Summer 2 Topic 1:
Inequalities

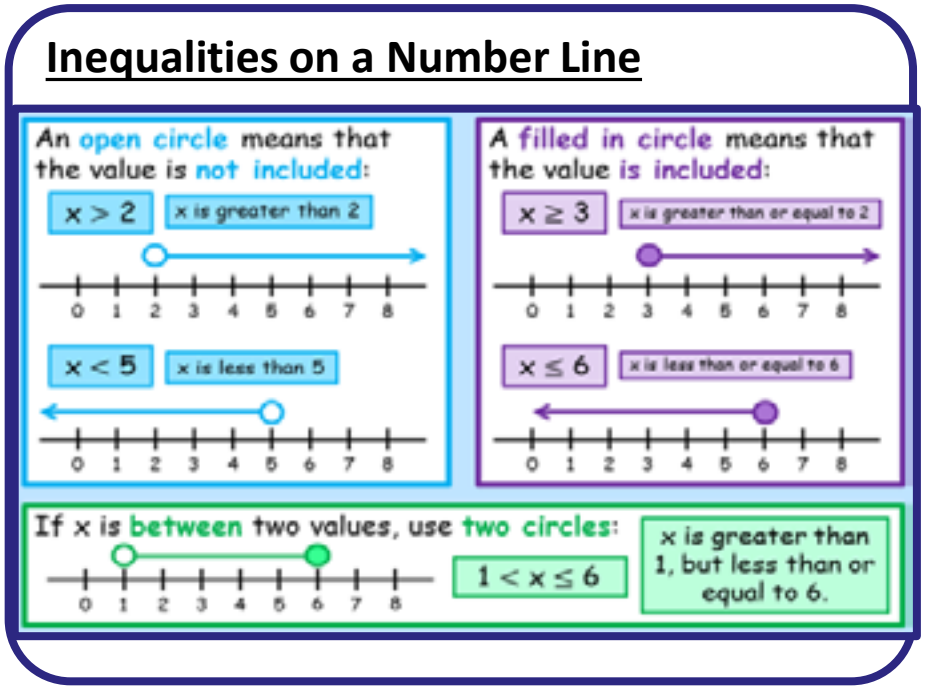
Key Concept

An inequality compares two values, showing if one is less than, greater than, or simply not equal to another value.

Key Words Symbols

Symbol	Words	Example Use
=	equals	1 + 1 = 2
≠	not equal to	1 + 1 ≠ 1
>	greater than	5 > 2
<	less than	7 < 9
≥	greater than or equal to	marbles ≥ 1
≤	less than or equal to	dogs ≤ 3

Inequalities on a Number Line



Tip

-2<y≤3 This inequality reads -2 is less than y which is less than or equal to 3. The integers satisfying this inequality are -1,0,1,2,3,

Solving simple two-step inequalities

We solve inequalities in exactly the same way as equations.

Solve $3x + 5 > 17$

We need to find values of x that make the left-hand side always greater than the right-hand side.

We solve this **exactly** like an equation, but instead of "equals", we use the **inequality symbol**.

$$\begin{aligned} 3x + 5 &> 17 && \quad -5 \\ 3x &> 12 && \quad \div 3 \\ x &> 4 \end{aligned}$$

The solution is x is greater than 4. This means any value greater than 4 will make the inequality correct.

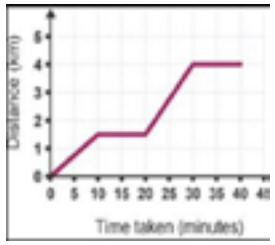
Solve $2x + 4 \geq 20$

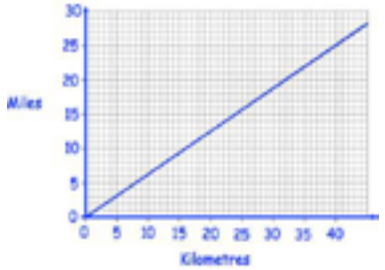
$$\begin{aligned} 2x + 4 &\geq 20 && \quad -4 \\ 2x &\geq 16 && \quad \div 2 \\ x &\geq 8 \end{aligned}$$

Solve $5x - 2 < 13$

$$\begin{aligned} 5x - 2 &< 13 && \quad +2 \\ 5x &< 15 && \quad \div 5 \\ x &< 3 \end{aligned}$$

Knowledge organiser Year 7 Summer 2 Topic 2 : Real Life Graphs





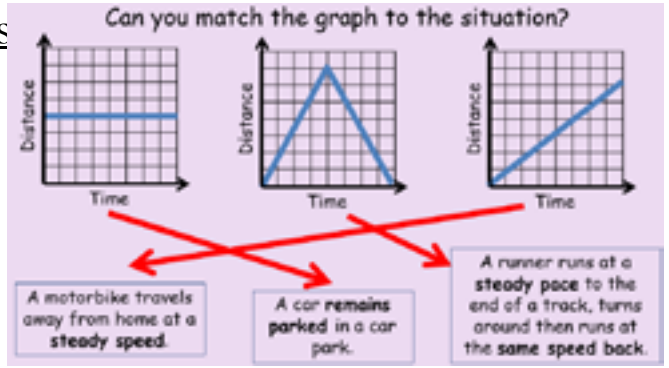
Key Words

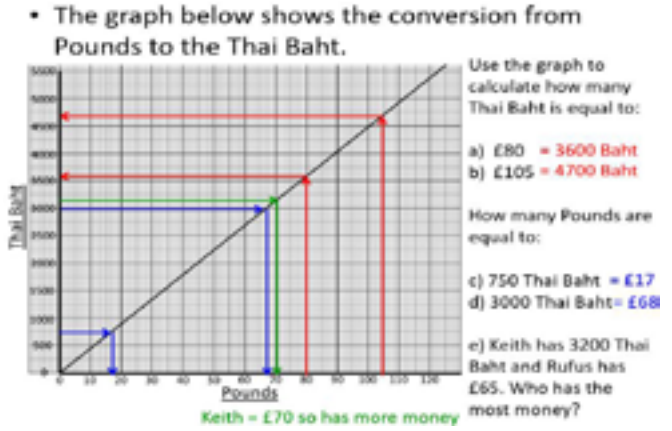
Graph
Real life
Distance
Time
Speed
Money

Key Concept

- All real-life graphs can be used to estimate or read-off values.
- The actual meaning of the values will depend on the **labels** and **units** shown on each axis.

Examples





Tip: **Use the graph means...**
Draw a line with your ruler to the line of the graph and then take the reading from this line as accurately as possible.

Maths - Transformations 1

Knowledge organiser Year 7
Summer 2 Topic : 3
Transformations

Key Words

Transformations: The four different ways a 2D shape can be changed: **Translation; Reflection; Rotation; Enlargement.**

Vector: A way of describing the distance and direction that a shape has moved.

Column Vector: The top number describes how far across, the bottom number describes how far up or down.

eg: $\begin{pmatrix} 2 \\ 5 \end{pmatrix}$ Move 2 to the right, Move 5 up

$\begin{pmatrix} -3 \\ -4 \end{pmatrix}$ Move 3 to the left, Move 4 down

Scale Factor: This is a **multiplier** which describes how much bigger one shape is compared to another (used for enlargements).

Example 1: A scale factor of 3 means that all the lengths on the 'enlarged' shape are 3 times as long.

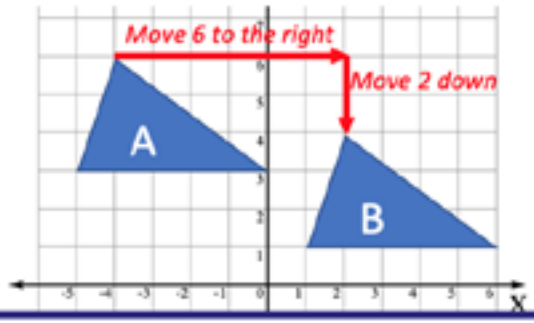
Example 2: A scale factor of ½ means that all the lengths on the 'enlarged' shape are half as long.

Translation

With a **translation** the shape moves position, it doesn't turn or change size. We usually use a column vector to describe how far (and in which direction) it has moved.

Example:

Shape A has been **translated** in the vector $\begin{pmatrix} 6 \\ -2 \end{pmatrix}$



Reflection

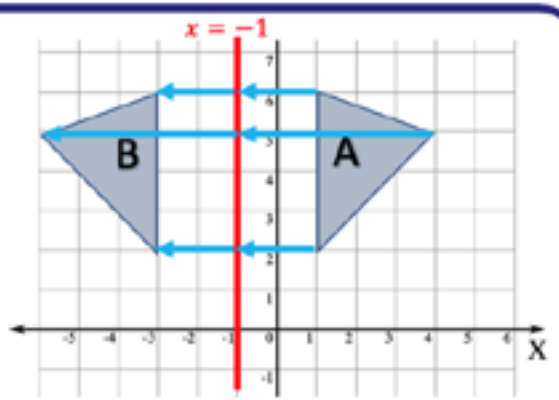
With a **reflection** the shape is 'flipped' the other side of a mirror line.
The mirror line can be described in these 3 ways:

$y = ?$ A **horizontal** line through the y-axis at that number (eg: $y = 3$)

$x = ?$ A **vertical** line through the x-axis at that number (eg: $x = 5$)

$y = x$ A **diagonal** line through the points: (-2,-2) (-1,-1) (0,0) (1,1) (2,2) (3,3) etc.

$y = -x$ A **diagonal** line through the points: (2,-2) (1,-1) (0,0) (-1,1) (-2,2) (-3,3) etc.



Example: **Reflect** shape A in the line $x = -1$.

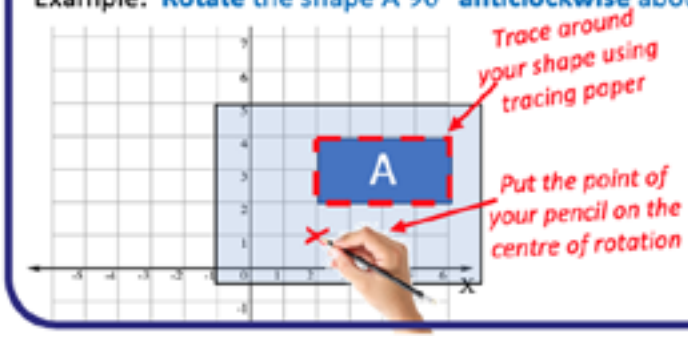
Rotation

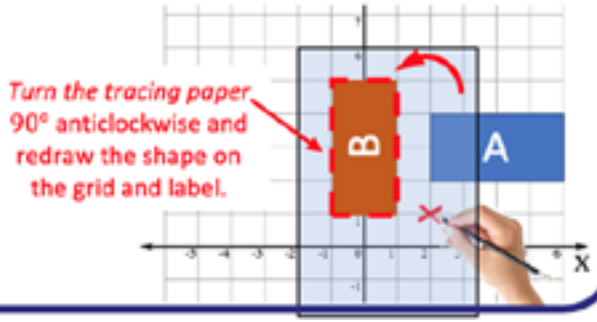
With a **rotation** the shape is turned. There is a **centre of rotation** which is the point around which the shape turns. You also need to know how far to turn (in degrees) and which way to turn.

Clockwise Anticlockwise

Example: **Rotate** the shape A 90° **anticlockwise** about (2, 1)

The centre of rotation is at (2, 1)





Knowledge organiser Year 7
Summer 2 Topic : 3
Transformations

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Vector: A way of describing the distance and direction that a shape has moved.

Column Vector: The top number describes how far across, the bottom number describes how far up or down.

eg: $\begin{pmatrix}2\\5\end{pmatrix}$ *Move 2 to the right* / *Move 5 up*

Move 3 to the left / *Move 4 down* $\begin{pmatrix}-3\\-4\end{pmatrix}$

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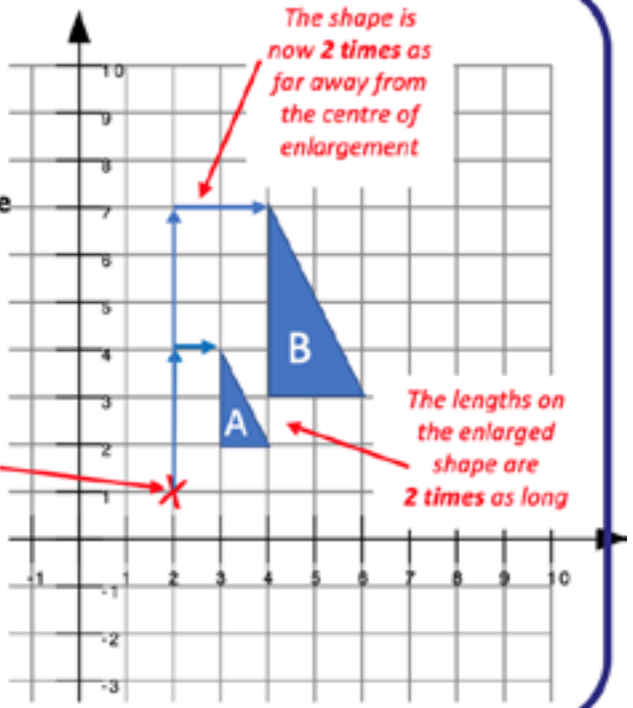
Example 2: A scale factor of ½ means that all the lengths on the 'enlarged' shape are half as long.

Enlargement

With a **enlargement** the shape changes size. We use a **scale factor** to tell us how much bigger, or smaller a shape should be.
If we use a **centre of enlargement** then the position of the shape will also change. The distance from the **centre of enlargement** to the enlarged shape is also changed by the same **scale factor**.

Example: **Enlarge** shape A by a scale factor of 2 with centre (1, 1), and label it 'B'

*The distance from the **centre of enlargement** and the **lengths of all the edges** will be multiplied by 2*



Knowledge Organiser Year 7
Summer Term 2, Topic 4
Charts and Diagrams

Key vocabulary:

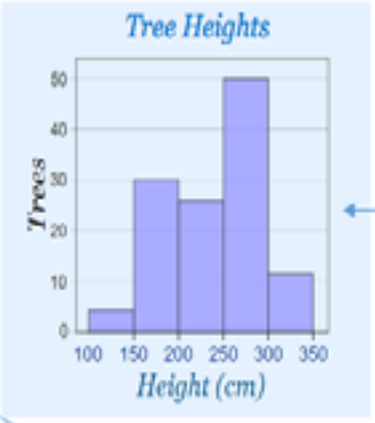
Discrete data – you count it, it is always a whole number
Continuous data – you measure it and it can be a decimal too
Composite bar chart – the data is presented on top of each other
Comparative bar chart – comparing two sets on the same axis
Categorical data – the data is collected and presented in groups
Pie chart – a circle showing categorical data
Histogram – similar to bar chart, but showing continuous data

Discrete & Continuous data

Discrete
- Number of cars in a car park
- Number of students in a class
- Number of sweets in a bag

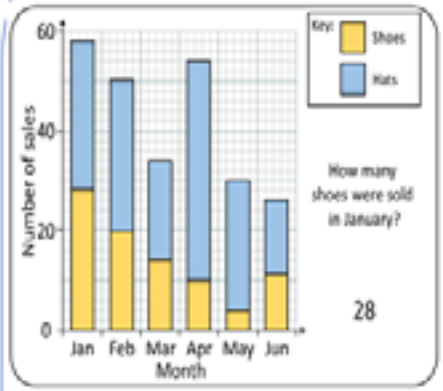
Continuous
- The height of a person
- The area of a field
- The time in a race

Histogram

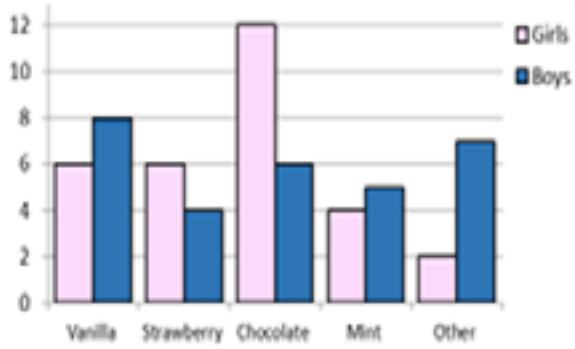


A histogram shows continuous data and has NO spaces between the bars

Composite bar chart



Comparative bar chart



Drawing a pie chart

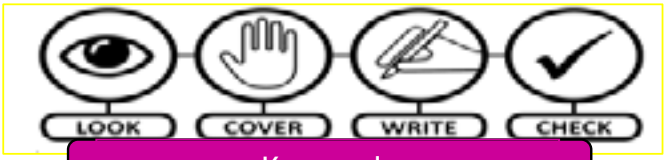
Colour	Frequency	Angle on pie chart
Red	3	60°
Blue	4	80°
Green	6	120°
Yellow	5	100°
Total	18	360°

Step 1) 360 ÷ 18 = 20° per person

Step 2) Multiply each frequency by 20 to find each angle on the pie chart

Step 3) Use a protractor to draw the angles

KNOWLEDGE ORGANISER – Year 7 – Composition Basics



Keywords

Bass line	The low-pitched instrumental part or **line usually** played by a bass guitar.
Octave	 The space between one note and the next of the same name. For example C – C.
Pentatonic Scale	A musical scale made up of five notes per octave.
Chord Progression	**Chord progressions** are series of two or more **chords** used in a piece of music.
Primary Chords.	Chords I, IV and V. In C, this would be C, F and G.
Major	Music that sounds happy/cheerful
Minor	Music that sounds sad/serious
By Step	Melodic movement where most notes are close in pitch ("Mary Had A Little Lamb").
By Leap	Melodic movement where most notes are further apart in pitch ("Jurassic Park").

Creating a chord progression in C

You will need to learn your roman numerals!
Lowercase = minor ° = Diminished

Diatonic Triads in ALL Major Keys (derivative)

I	ii	iii	IV	V	vi	vii°
C	Dm	Em	F	G	Am	B°

How to play these chords:

C (I) = C-E-G
Dm (ii) = D-F-A
Em (iii) = E-G-B
F (IV) = F-A-C
G (V) = G-B-D
Am (vi) = A-C-E
B (vii°) = B-D-F

The best place to start when creating a chord progression is by using **primary chords**.

Most popular songs also include a **minor** chord, usually this is chord iii or vi (In C that's Em or Am).

The more minor chords you use the more serious your composition will sound.

Creating a melody using pentatonic scales.

Once you have created a chord sequence, use the below **pentatonic scales** to help you if you are struggling for melodic ideas.

E.g. if you are playing a C chord, use note from the C pentatonic scale. If you are playing an F chord, use notes from the F pentatonic scale

In order to make your melody catchy, try to move mostly by step. In order to keep your melody interesting you may want to add a few leaps in.

Don't be afraid to repeat ideas!

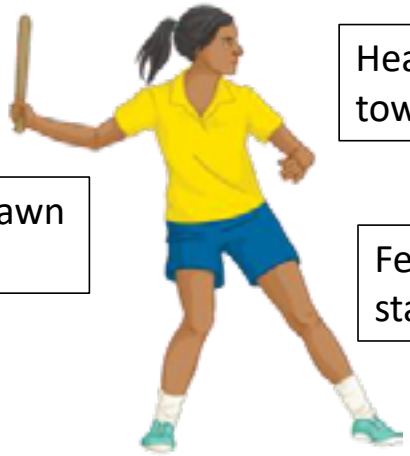
C Major = C D E G A
D Minor = D F G A C
E Minor = E G A B D
F Major = F G A C D
G Major = G A B D E
A Minor = A C D E G
Bm Diminished = B C D F G

Tick when complete	Recommended Listening – make a list of all the instruments you hear.
	How to write a song — top ten tips, uploaded by 'The Coloured Scribblers' https://www.youtube.com/watch?v=f3IFkhRTYsI
	147 ways to write a melody, uploaded by 'Andrew Huang' https://www.youtube.com/watch?v=I2Ej4Jpquas
	Soloing w/ patterns on pentatonic scales, key-board lessons, uploaded by 'Howcast' https://www.youtube.com/watch?v=7K7U4hxCSiM

M	A	D	T	S	H	I	R	T
melody	articulation	dynamics	texture	structure	harmony	instruments	rhythm	tempo
the tune	how notes are played	loud / soft and any other volume changes	layers of sound and how they fit together	sections of music and how they are organised	chords used	types of instruments heard	the pattern of notes	the speed

Rounders

IMPORTANT TECHNIQUES



Head up - looking toward bowler

Bat is drawn back

Feet open the stance to stand side-ways on.

Eyes focus on the ball

Hands open to create a “net”

Feet and body behind the ball

Overview of the rules

Batting

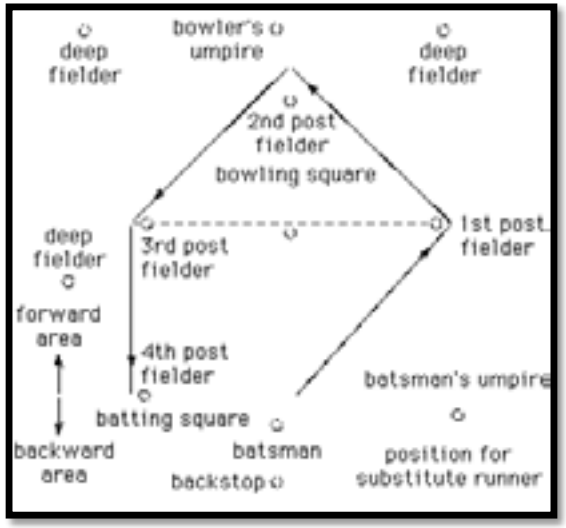
1. Hit the ball and run to 2nd base = ½ rounder
2. Hit the ball and run to 4th base = 1 rounder

Bowling

1. A good bowled ball = bowled between knee and head & must be the bat side of the batter.
2. The batter must run on a good bowled ball.
3. Two no balls in a row = ½ a rounder scored.
4. The ball being held in the bowling square means that a batter can continue to a post they may be running to but must then wait.

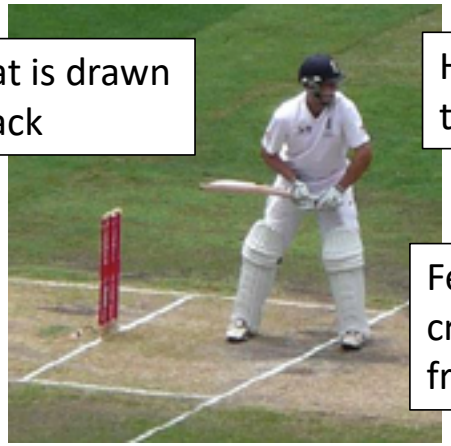
Getting the batter out, fielding

1. Hit ball being caught.
2. The base batter is running to being stumped before the batter arrives.
3. Batter running inside of a post.
4. Two batters running to/waiting at the same post.



Cricket

IMPORTANT TECHNIQUES



Bat is drawn back

Head up - looking toward bowler

Feet "straddle" the crease line and away from the stumps

Eyes focus on the ball

Hands open to create a "net"

Feet and body behind the ball

Overview of the rules

How to Score - Batting

1. Batter runs from crease to crease after the bowler bowls at the them = 1 run
2. Ball is hit past the the boundary but touches the ground on its way = 4 runs
3. Ball is hit past the boundary rope without touching the ground = 6 runs
4. Wide Bowl =1 run
5. No Ball Bowl = 1 run
6. The Teams score is the total of all players score

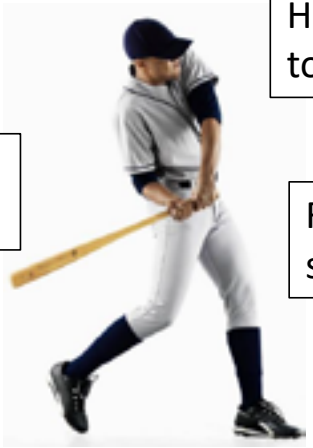
How to prevent scoring – Bowling/fielding

1. The ball hits the stumps after being bowled.
2. Batter hits the ball and is caught by a fielder before the ball bounces.
3. Batter tries to make a run but does not make the crease they are running toward before the stumps are hit with the ball (run out).
4. Batter steps leaves the crease and the ball is touched / thrown at the wickets and hits them (stumped).
5. Leg before wicket (LBW) – The ball is bowled and hits the batters leg preventing the ball from hitting the stumps.
6. The batter hits their own wicket with their bat while attempting to strike the ball.

Softball

IMPORTANT TECHNIQUES

Head up - looking toward bowler



Bat is drawn back

Feet open the stance to stand side-ways on.

Eyes focus on the ball

Hands open to create a “net”, one hand with a glove.

Feet and body behind the ball

Overview of the rules

Each team consists of 9 players and teams can be of mixed gender

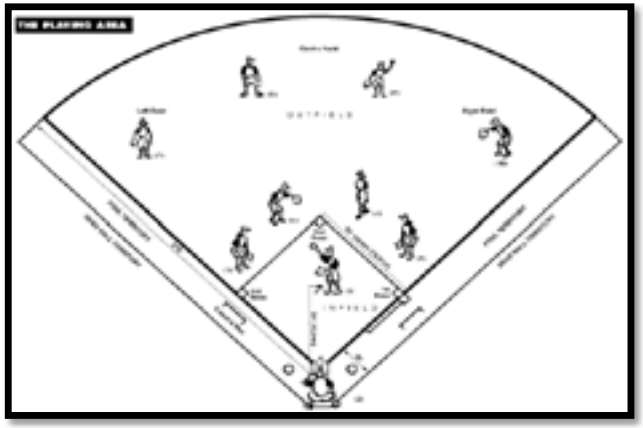
Batting

1. A game lasts for at least one “innings” per team
2. Each team bats once in each innings before the sides switch
3. A batter must successfully strike the ball and run around as many bases as possible. Once they get all the way around and back to home plate without being given out a run is scored.
4. If the ball is struck out of the first and third base line it is in a foul area. Once the ball crosses this line before it bounces the ball is deemed ‘dead’ and play restarts with a new pitch.
5. A home run can be scored by hitting the ball over the outfield (beyond the field of play) and into a dead ball area. The batsmen can then stroll around the bases to score along with any additional batsmen on base.

Fielding

The fielding team can prevent the batsmen scoring runs by:

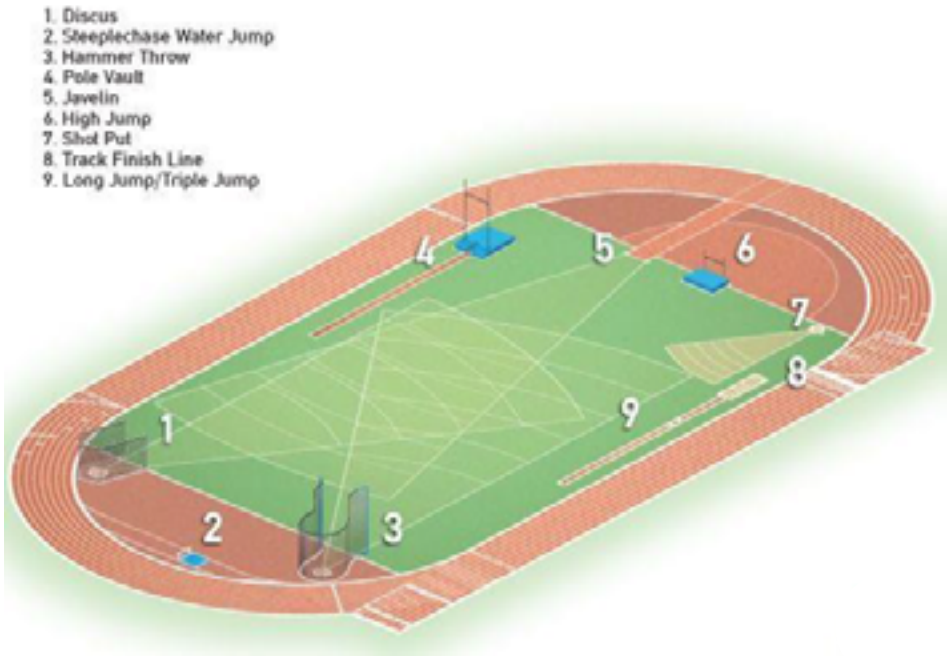
1. Making them miss the ball
2. Catching the ball
3. Tagging one of the bases before they reach it
4. Tagging the batsmen whilst they are running with the ball in hand



Athletics – Setting up an event

Track and Field Arena

In order for a stadium/arena to host an official competition, it must have a 400m track divided into 6 or 8 lanes as well as jumping and throwing event areas. All races run anti-clockwise.



Overview

Athletics is a group of sporting events that involves competitive running, jumping, throwing, and walking. The most common types of athletics competitions are track and field, road running and cross country running.

Basic Rules

1. Athletics is split into Track (running) events, and Field (throwing and jumping) events.
2. You start a track race with the instructions Take Your Marks, Set, Go.
3. You win a field event by throwing or jumping the highest or furthest.
4. All competitors must start a track race at the same time. If you don't, this is called a False Start.

Throwing	Jumping	Track	
		100m	Short distance
		200m	
Javelin	Long Jump	400m	
Shot Putt	High Jump	800m	Middle distance
Discus	Triple Jump	1500m	
Hammer		3000m	
		Hurdles	

Athletics

Track

Sprinting

Start

During

1. Hold your torso straight and vertical
2. Hold head still, facing forward
3. Pump your arms so hands travel from hips to lips
4. With each stride lift front knee high

Rules

- A false start is called when the feet of a runner leave the starting blocks before the starter's gun

Long distance

Start:

- Standing

During

1. Hold your torso straight and vertical
2. Pump your arms so hands travel from hips to lips,
3. Keep shoulders steady

Pace is very important during a long distance race

Rules

- During an 800m race, athletes run the first curve in separate lanes, then break after 100m.

Field - Throwing

Shot putt

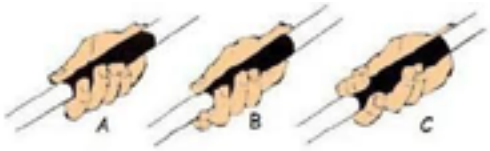
1. Rest the shot in your **fingers** and push into your neck
2. Ensure your chin, knee and toe are in line
3. Punch shot away from the neck
4. Keep elbow high

Rules:

- The shot must be released above the height of the shoulder with one hand

Javelin

1. Straighten your arm keeping javelin close to your head and parallel to your arm
2. Ensure your chin, knee and toe are in line
3. Transfer your weight from front to back leg when releasing the javelin



Grip:

- Place javelin in the crease of your hand

Field – Jumping

Long jump

Run up

1. Athlete accelerates onto the take off board

Take off

1. Take off on one leg as close to the line as possible
2. As the athlete comes into land, bring both legs in front of body.

Rules

- No part of the athletes foot should cross the front edge of the foul line

High Jump

Run up

1. Run on a curve leaning away from the bar
2. Use approximately 6-12 steps on approach

Take off (Fosbury flop)

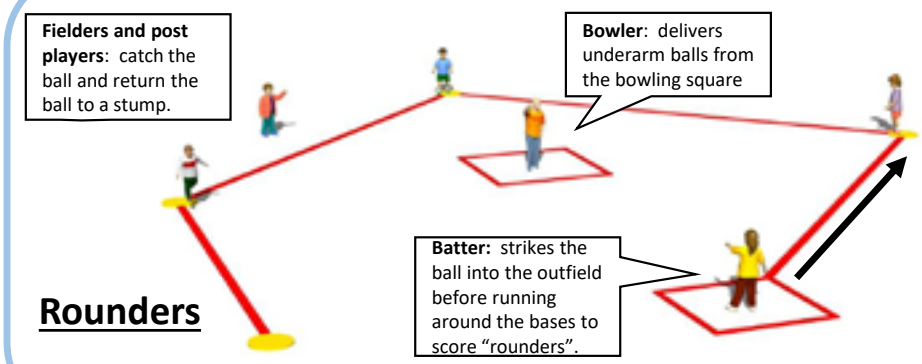
1. Drive knees upwards on the leg closest to the bar
2. Rotate hips so they face away from the bar
3. Reach arm up and over
4. Arch back and bring legs together
5. Lift feet over and land on back, tucking chin to chest.

Rules

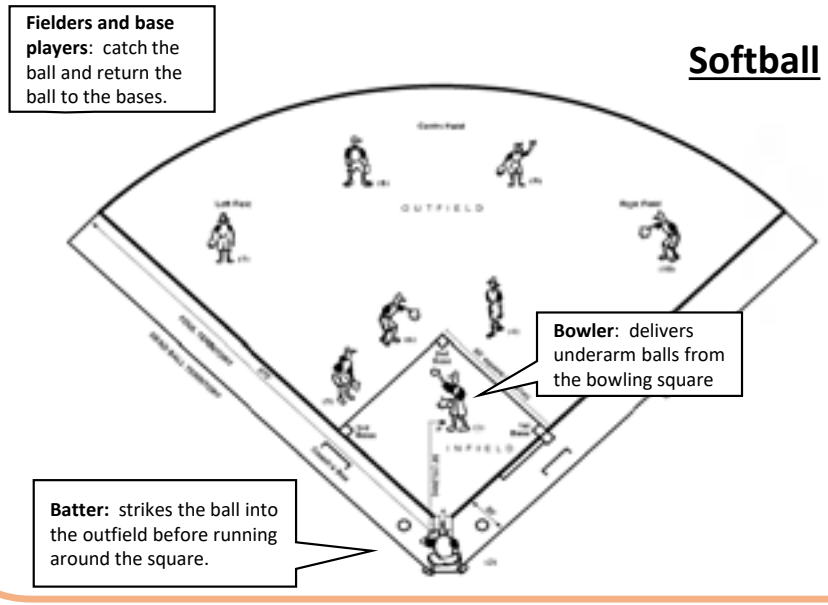
- Take off on one foot only
- Do not touch the bar

Striking and Fielding – Setting up a game

Rounders



Softball

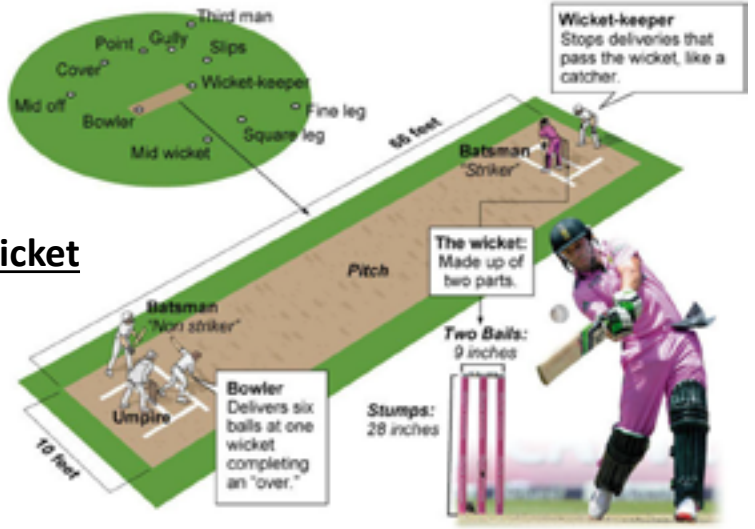


Overview

Striking/Fielding games are activities in which **"batters"** (the people striking) score points by striking an object (usually a ball) and running to selected playing areas. **"Fielders"** prevent opponents from scoring by retrieving the object and returning it to stop the play. There are usually disadvantages to the batting team if the batter cannot hit the object.

By playing these games, participants will learn the key skills and tactics for games such as **Rounders, Cricket and Softball.**

Cricket



HWCS Year 7 PLAYING SAFELY, Knowledge Organiser

Lifting and carrying equipment

To get our work set up we might ask you to carry equipment, it is your responsibility to do this safely to prevent injuries.

Correct posture should be maintained throughout and care taken when placing the equipment down.

1. Bend knees.
2. Back flat and straight.
3. Keep weight/object close to body.
4. Extend legs to lift.

First AID - The Basics

In PE **it is very unlikely** you will ever have to perform first aid. But you might notice something before the teacher does, in this case call for help and follow any instructions the teacher gives you.

What to do if someone is injured and the teacher is not there:

1. First check that you and the casualty aren't in any danger, and, if possible, make the situation safe.
2. If necessary, dial 999 or 112 for an ambulance when it's safe to do so.
3. 3. Carry out basic first aid.

Assessing a casualty:

The 3 priorities when dealing with a casualty are ABC, which stands for:

- **A**irway
- **B**reathing
- **C**irculation

PE - Theory - Playing Safely 2

Remember - B.R.E.A.K.S

B= Body

B - Always complete a warm and cool down. Stretches muscles to reduce injury and avoids muscle soreness.

R=Rules

R - Rules are there to protect participants. Officials ensure rules are followed players are then kept safe. e.g. No Contact in netball.

E=Equipment

E - All equipment needs to be in good working order. Never use damaged equipment. Always use e.g. Post Protectors in Rugby.

A=Ability

A - Play at your correct ability levels for balanced competition. Age, weight and skill level. Particularly in Contact sports e.g. Rugby.

K=Kit

K - Wear appropriate clothing and footwear. E.g. football wear shin pads and studded boots.

S=Surface

S - Check playing surfaces/areas are safe for the activity to start. No litter, water to make areas slippery.

PSHE - First Aid

Harrow Way PSHE Department – Year 7 – First Aid

Define:
CPR
Cardiopulmonary resuscitation (**CPR**) is an emergency procedure that combines chest compressions often with artificial ventilation in an effort to manually preserve intact brain function until further measures are taken to restore spontaneous blood circulation and breathing in a person who is in cardiac arrest.

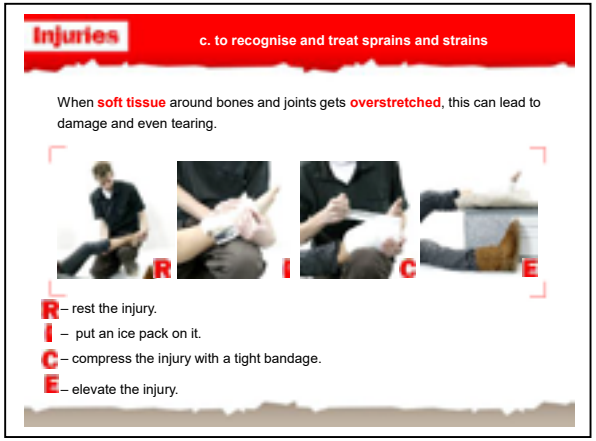
Define:
Abdominal Thrust
The Heimlich manoeuvre also called **Abdominal thrusts**) is a first aid procedure used to treat upper airway obstructions (or choking) by foreign objects.

Define:
Burn
An injury caused by exposure to heat, friction or chemicals.

Define:
Scalds
A burn or other injury caused by hot liquid or steam.

Concussion
A bang on the head shakes up the brain. This is **concussion**.
Indirect force from a blow shakes the brain
> loss of consciousness
> dizziness
> nausea
> loss of memory
> headache

Type of Burn	Example
Dry Burn	Stove, Iron, Fireworks, Matches, Open fire, Hands slipping through rope
Scald	Bubbling oil, Boiling kettle, Chip pan, Hot tea
Chemical	Car Battery, Weed killer, Bleach, Cement mix
Electrical	Lightening, overhead cables, Railway lines, Charging cable
UV	Sun bathing, Sun bed, Sunshine



Procedure for Choking

1. Get the casualty to lean forwards, support their chest with one hand.

2. Give up to 5 sharp blows between the casualty's shoulder blades with the heel of your hand.

3. Quickly check their mouth to see if the blockage has come out after each back blow.

Still choking? Try abdominal thrusts…

4. Stand behind the casualty.

5. Put both arms around the casualty.

6. Put one fist just above their belly button.

7. Grab your fist with your other hand.

8. Pull sharply inwards and upwards up to 5 times.

9. Quickly check their mouth to see if the blockage has come out after each thrust

Year 7 Knowledge Organizer
Summer Term

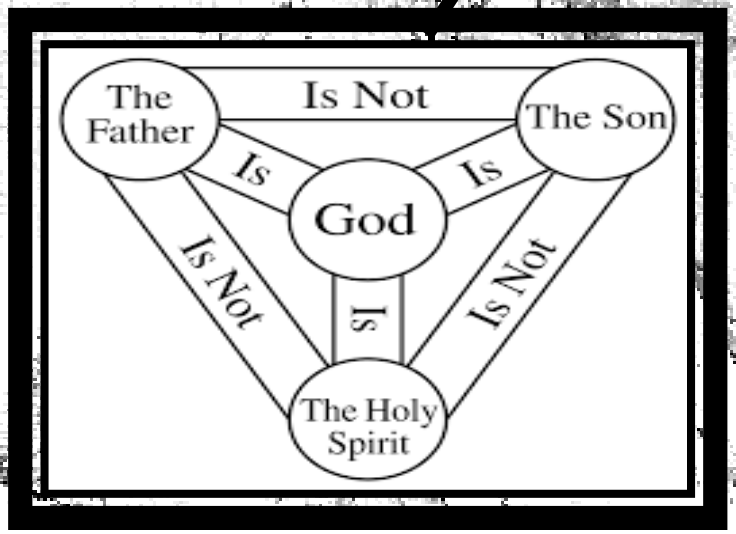
What is necessary to have a 'good life'? (think about these then put them in order)

- To treat others well.
- To have lots of money.
- To be popular.
- To be beautiful.
- To be kind.

Make sure you can explain this Trinity diagram. What does it actually mean? Read the red box then test yourself.

WHEN HE WAS DYING ON THE CROSS JESUS SPOKE TO GOD AND SAID '*FORGIVE THEM FATHER, FOR THEY KNOW NOT WHAT THEY DO*'

REMEMBER THE TRINITY; *WHO WAS HE TALKING TO?*



Trinity

1. God the Father; omnibenevolent part
2. God the Son; JC
3. God the Holy Spirit; mystical part

They are not all interchangeable, remember how to use this diagram. Consider, how could JC be talking on the cross to 'his father'?. Each part plays its role. Remember…it is very difficult, if not impossible, to explain the trinity properly.

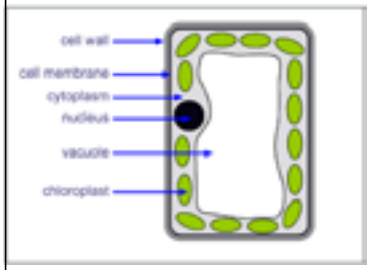
Unpacking the doctrine

The idea that there is One God, who is Father, Son, and Holy Spirit means:
There is exactly one God
The Father is God
The Son is God
The Holy Spirit is God
The Father is not the Son
The Son is not the Holy Spirit
The Father is not the Holy Spirit

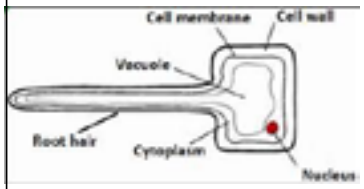
Variation and plants

Section 1	Definitions and spellings	
1	**Variation**	The differences within and between species.
2	**Correlation**	Relationship between two quantities
3	**Categoric**	Where differences between living things can only be grouped into categories
4	**Continuous**	Where differences between living things can have any numerical value.
5	**Inherited**	Features that are passed from parents to their offspring.
6	**Environment**	The surrounding air, water and soil where an organism lives.
7	**Variable**	A factor that is able to be changed.
8.	**Classification**	Putting organisms into groups depending on similar characteristics
9	**Species**	A group of living things that have more in common with each other than with other groups.
10	**Biodiversity**	The variety of living things. It is measured as the differences between individuals of the same species, or the number of different species in an ecosystem.
11	**Adaptation**	A structure or a function that allows a living organism to survive in a given habitat
12	**photosynthesis**	A process where plants and algae turn carbon dioxide and water into glucose and release oxygen.

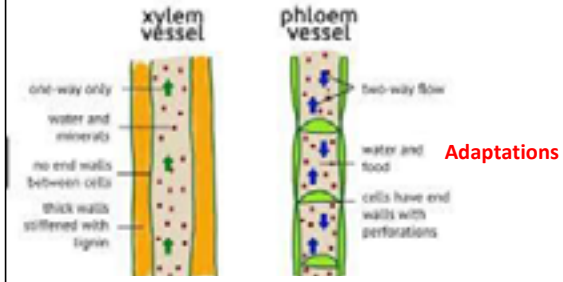
Section 2 – specialised cells



Palisade cell.
Found in the leaf.
Function: to photosynthesise
Adaptation: Packed full of chloroplasts to absorb sunlight.



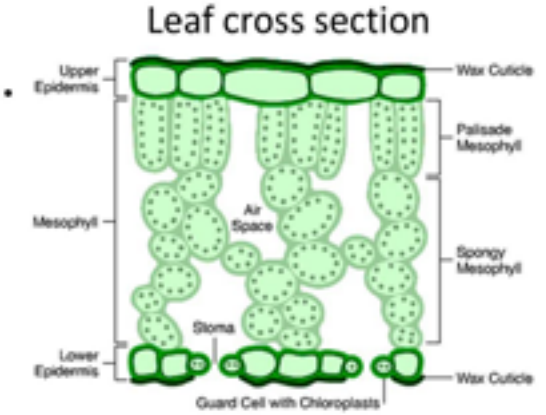
Root hair cell.
Found in the root.
Function: to absorb water and minerals
Adaptation:
Large surface area to absorb more water



Adaptations

Xylem and phloem
Found in vascular bundles in veins throughout the plant.
Function – to transport water (xylem) and food (phloem)

Section 3 – specialised organs – the leaf



Part	Description
Stoma	Pores on the underside of the leaf. Allow gases (air) to enter the leaf.
Vein	Contains the tissues (phloem and xylem) that transport food and water.
Spongy Mesophyll	Layer of cells with air-spaces between them.
Waxy Cuticle	Transparent, waterproof layer on the top of the leaf. Stops the leaf from losing water
Upper Epidermis	Single layer of flat cells covering the top surface of the leaf.
Palisade Cells	Layer of long cylindrical cells just under the upper epidermis. Contain lots of chloroplasts
Guard Cells	Control the closing and opening of the stomatal pores.
Lower Epidermis	Single layer of flat cells covering the bottom surface of the leaf.
Chloroplast	Small structures within the cells where photosynthesis takes place.

Year 7 - Reproduction and Movement

A - Adolescence

1. Adolescence	The period of time when a child changes into an adult (emotional and physical changes)
2. Puberty	The physical changes that take place during adolescence.
3. What happens to a girl during puberty?	Breasts develop, ovaries start to release eggs, periods start and hips widen.
4. What happens to a boy during puberty?	Voice breaks, testes and penis get bigger, testes start to produce sperm, shoulders widen, hair grows on face and chest.
5. Sex hormones	Female hormones made in ovaries, male hormones made in testes.

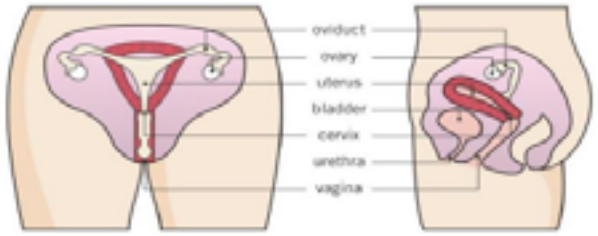
B – Reproductive systems

6. Ovaries	Female reproductive organs (production of eggs).
7. Testes	Male reproduction organs (production of sperm).
8. Oviduct	Carries egg to the uterus.
9. Sperm duct	Carries sperm from the testes to the penis.
10. Urethra	Tube that carries urine from the bladder out of the body.
11. Cervix	Ring of muscle at the entrance to the uterus above the vagina
12. Vagina	Receives sperm during intercourse (where the penis enters).

C – Fertilisation and Development

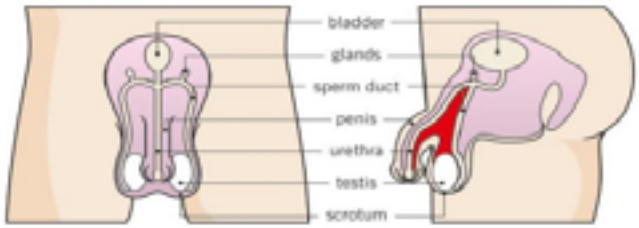
13. Ejaculation	The release of sperm into the vagina.
14. Fertilisation	The point at which the egg and sperm join together
15. Implantation	When the fertilised egg (embryo) attaches to the lining of the uterus.
16. Placenta	An organ where substances are passed between the mother's blood and the foetus's blood.
17. Umbilical cord	Connects the foetus to the placenta.
18. Gestation	The period of development before birth (9 months for humans)

D – Female Reproductive system



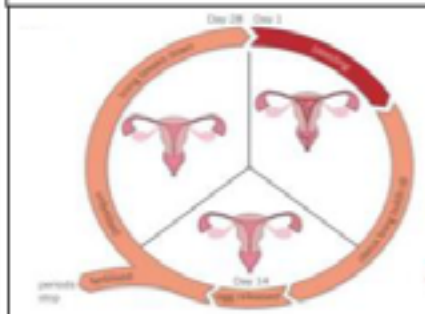
▲ The female reproductive system.

E – Male Reproductive system



▲ The male reproductive system.

F – Menstrual Cycle



Day 1-5 - period

Day 5-14 - uterus regrows.

◀ The menstrual cycle.

Day 14 - **ovulation** (egg released)

G

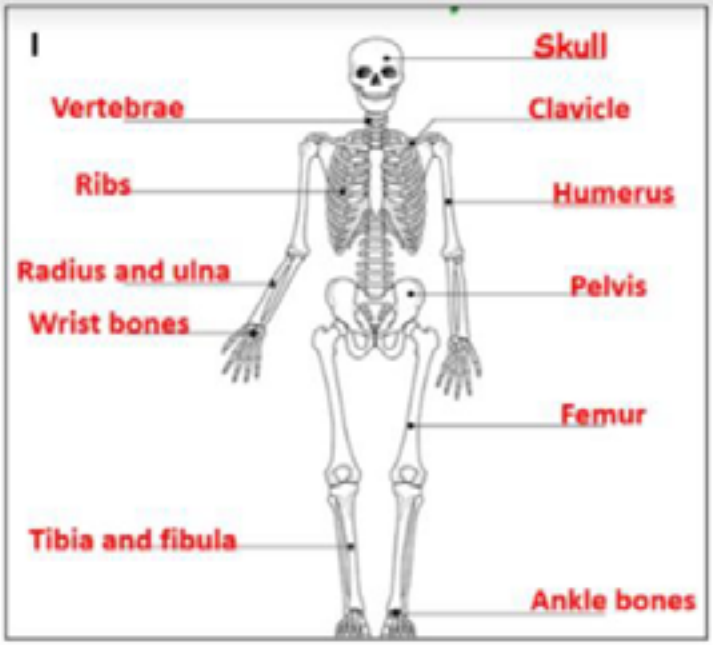
Cell Structure	Function
Cell	Building Block of Life
Tissue	Group of cells of the same type.
Organ	Group of different tissues working together.
Organ System	Group of Organs working together

H

The parts of the human skeletal system work to provide:

- Support – skeleton acts as a framework.
- Protection – from external forces.
- Movement – bones work with muscles to allow movement.
- Production of new blood cells – in the bone marrow of long bones, red blood cells, white blood cells and platelets are made.

I



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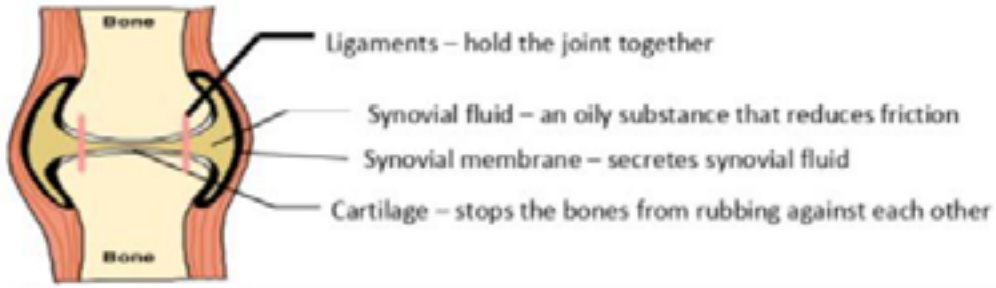


K

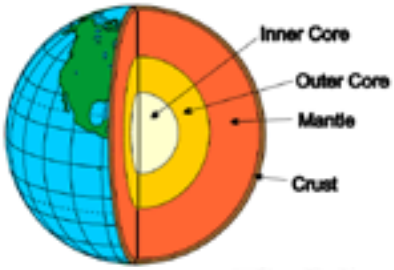
Bones	Tissue that forms a hard structure used to protect organs and for movement.
Skeleton	All the bones in the body.
Cartilage	The strong smooth muscle that covers the end of bones to prevent them rubbing.
Ligaments	Tissue that joins two bones together.
Tendons	A tissue that joins a muscle to a bone.
Antagonistic Muscle	A pair of muscles that work together to control movement at a joint – as one muscle contracts the other relaxes.
Bone marrow	Bone marrow: Tissue found inside some bones where new blood cells are made.

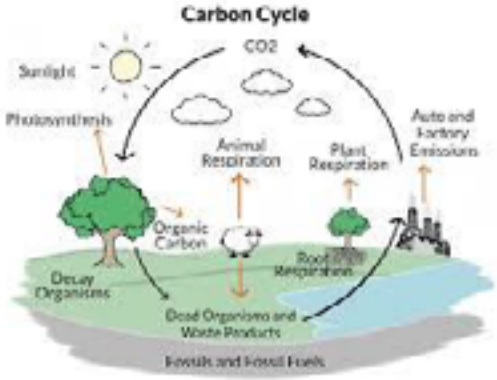
L Antagonistic Pair

Chemistry - Atmosphere

Section 1	The Earth
Crust	The outer layer of the Earth. Mostly silicon, oxygen and aluminium
Mantle	Thickest layer of the Earth. Viscous semi-solid (made of solid and melted rock).
Inner Core	The inner layer of the Earth. Dense, very hot, made mostly of solid iron and nickel.
Outer Core	Made of liquid iron and nickel
Atmosphere	The gases surrounding the Earth.

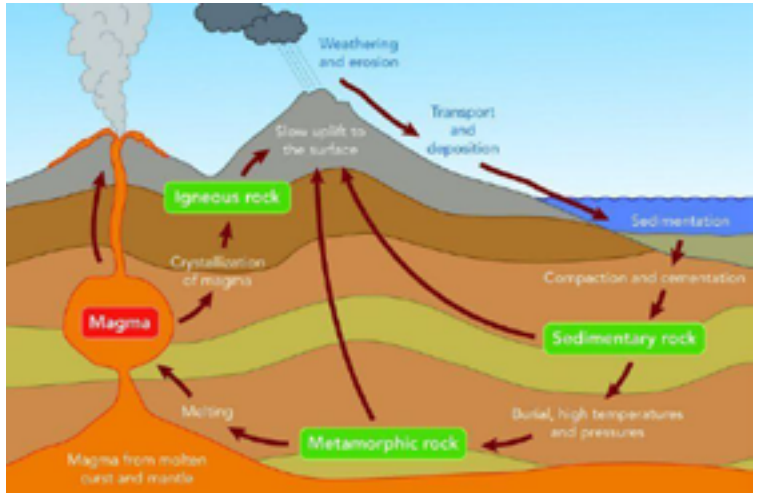
Section 2	Burning fuels
Fuel	A material that burns to transfer useful energy
Complete Combustion	When fuels burn in oxygen. E.g. when the hole on the Bunsen burner is open. Produces carbon dioxide and water.
Incomplete combustion	When there is not enough oxygen. E.g. when the hole on the Bunsen burner is closed. Produces carbon monoxide, water and carbon (soot).
Fossil Fuels	Coal, oil and gas. A fuel made from the remains of animals and plants that died millions of years ago.
Non-Renewable	Fuels that will eventually run out (fossil fuels)





Section 3	Types of rock
Sedimentary	Made of broken down rocks (sediment) which has been compacted and cemented together. Porous, permeable, contain fossils.
Metamorphic rocks	Made when rocks experience high temperatures and pressure. Very hard, strong and distorted. May contain fossils.
Igneous rock	Made when magma or lava cools down. Crystalline, hard, no fossils.
Rock Cycle	The cycle that changes rocks from one type to another.

Section 4	Carbon cycle
Respiration	Done by all living things. Transfers energy from food and plants. Gives out carbon dioxide into the atmosphere.
Combustion	Transfers energy from fuels. Gives out carbon dioxide into the atmosphere.
Photosynthesis	Process plants use to produce glucose from carbon dioxide and water. Removes carbon dioxide from the atmosphere
Dissolving in oceans	Takes carbon dioxide into the oceans. Removes it from the atmosphere
Carbon stores	Places where carbon is held. Plants, animals, rocks, oceans, atmosphere



Year 7 – Scientific skills

Section 1: Investigations

- Stage 1 - ask a question
- Stage 2 - make a prediction
- Stage 3 – identify variables
- Stage 4 – plan a method picking the right equipment
- Stage 5 - identify any risks and put in place precautions
- Stage 6 – record your observations or results
- Stage 7 – evaluate and improve your method
- Stage 8 – analyse your results, what is the answer to your question?

Always use a pencil and ruler!

Section 2: Variables

Independent	The thing you are changing in the investigation
Dependent	The thing your are measuring in the investigation
Control	Things which you need to keep the same to make sure it is a fair test.

chIn meD

- chIn → Change the independent
- meD → Measure the dependent

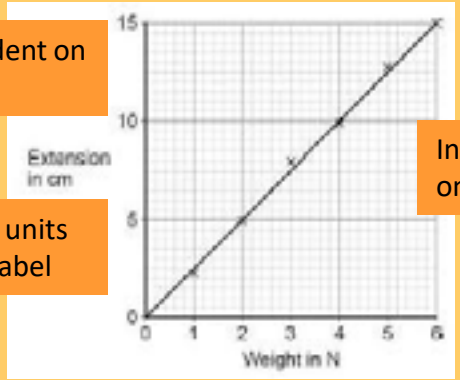
Section 3: Key terms

Accuracy	Using the appropriate equipment so your results are valid
Precision	This is how many decimal places you make your measurements e.g. 3.24cm is more precise than 3.2cm
Repeatability	How likely it is you would get the same results if you repeated the experiment
Reproducibility	How likely it is someone else would get the same results as you if they did the experiment

Section 4: Drawing graphs

Dependent on y-axis

Include units in axis label



Straight line of best fit

Independent on x-axis

Axis scale even spaces between each number

Section 5: Data analysis

Mean	Add up all the values and divide by how many you have
Range	Take the smallest value away from the largest.
Uncertainty	Divide the range by two

Spanish Y7- Mi ciudad

¿Qué hay en tu ciudad?	What is there in your city?
Hay…	There is/are
No hay…	There is/are not
Un castillo	A castle
Un centro comercial	A shopping centre
Un estadio	A stadium
Un mercado	A market
Un museo	A museum
Un parque	A park
Un piscina	A swimming pool
Una plaza	A square
Un polideportivo	A sports centre
Un restaurante	A restaurant
Una tienda	A shop
Una universidad	A university
No hay nada	There is nothing
Hay mucho	There is a lot

¿Qué hora es?	What time is it?
Es la una	It is 1
Son las dos	It is 2
Es la una y cinco	It is 5 past 1
Son las dos y diez	It is 10 past 2
Son las tres y cuarto	It is quarter past 3
Son las cuatro y veinte	It is 20 past 3
Son las cinco y veinticinco	It is 25 past 5
Son las seis y media	It is half past 6
Son las siete menos veinticinco	It is 25 to 7
Son las ocho menos veinte	It is 20 to 8
Son las nueve menos cuarto	It is quarter to 9
Son las diez menos diez	It is 10 to 10
Son las doce	It is 12

¿Qué haces en la ciudad?	What do you do in the city?
Salgo con mis amigos	I go out with my friends
Voy…	I go
Al cine	To the cinema
Al parque	To the park
A la bolera	To bowling
A la cafetería	To the café
A la playa	To the beach
De compras	Shopping
No voy	I don't go

Palabras muy frecuentes	High frequency words
Aquí	Here
A ver	Let's see
Con	With
Hasta	Until
Más	More
Con	With
A veces	Sometimes
Siempre	Always
A menudo	Often

En la cafetería		In the café	
Quiero	I want	Raciones	Snacks
Bebidas	Drinks	Calamares	Calamari
Un batido de chocolate	A chocolate milkshake	Una tortilla	Spanish omelette
Un café	A coffee	Gambas	Prawns
Un té	A tea	Jamón	Ham
croquetas	croquettes	Patatas bravas	Spicy potatoes

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