Harrow Way Community School
Learning for life, success for all

Year 7 Knowledge Organiser

Spring 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 - SPRING TERM

Contents

Art - Cubism

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

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

1.

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.

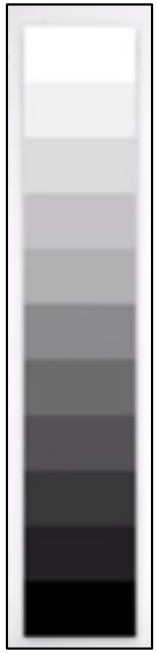
Literacy focus

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

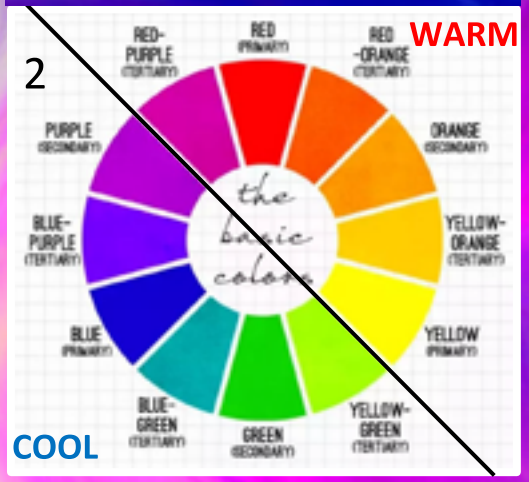
https://www.coolkidfacts.com/pablo-picasso/

6.

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.

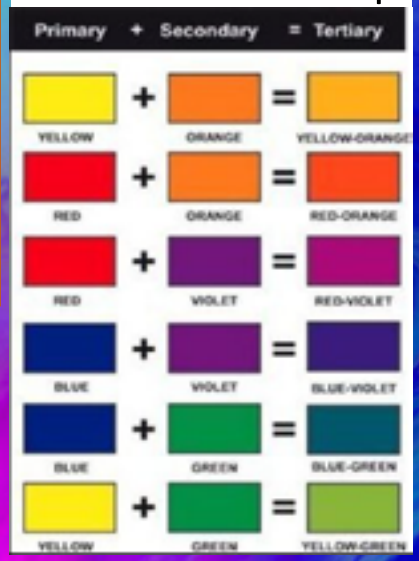
COLOUR WHEEL 2



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

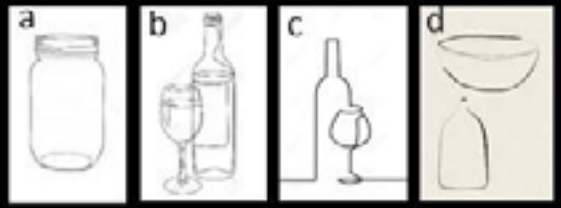
1 ELLIPSES:
The circle found at the top and the base of a cylindrical object; i.e. bottle, cylinder, etc. Ellipse can also occur when the sides of the bottle change direction, i.e. get narrow or wide.

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.**

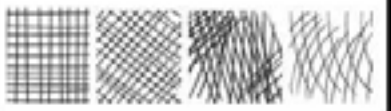
SHADING (light from the side):
On the outside of the object the tone changes gradually from one side to the other. Light and dark areas swap direction on the inside opening of the object like in this cup.

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.

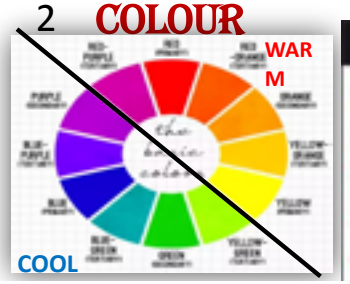
12 COMPOSITION:
Refers to the organisation, arrangement, and combination of objects within the borders of a **drawing** space.
For a great **drawing**, you want to bring the eyes of the viewer toward your centre of interest within an aesthetically pleasing **composition.**

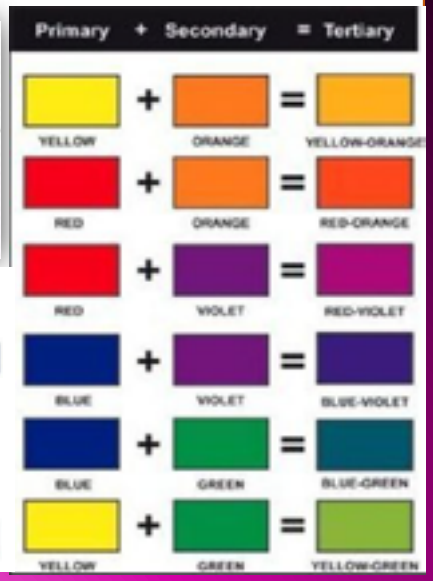
FORMAL ELEMENTS

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
is adding grey to a colour

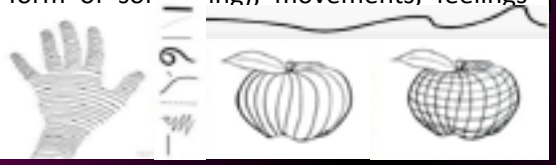
SHADE

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.

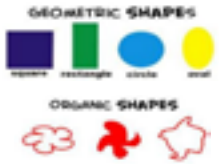
4 LINE

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**.

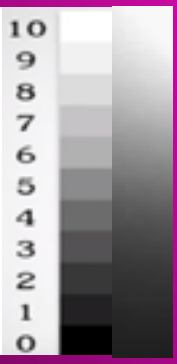


6 FORM

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.

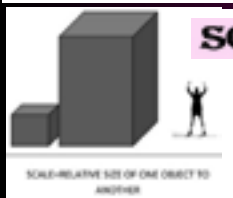


8 TEXTURE

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.

9 SCALE

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.

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.

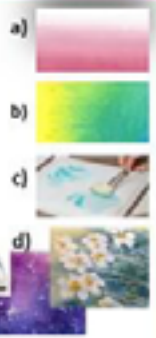
HP- Hot Press. Smooth surface for detailed work
CP (NOT) – Cold press. Slightly textured for most types of work
Rough – Heavily textured paper enhances the final piece of work.

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

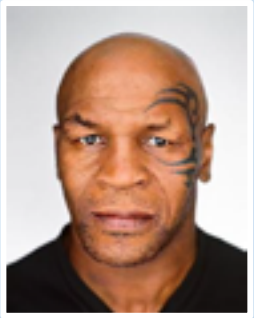
1. Types of Photography

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.

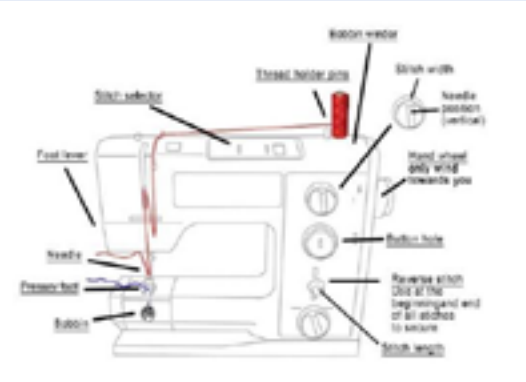
- Flowing
- Delicate
- Simple
- Bold
- Thick
- Thin

Art - Textiles and Clay

TEXTILES

1.SEWING MACHINE

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

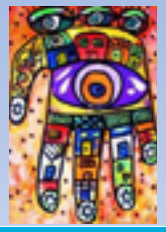


2. HEAT PRESS

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

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

D&T - Door Stop 1

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

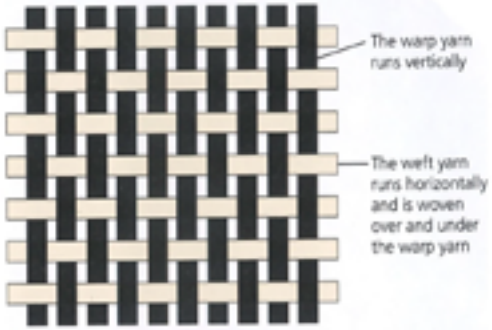
Types of material and their uses

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.



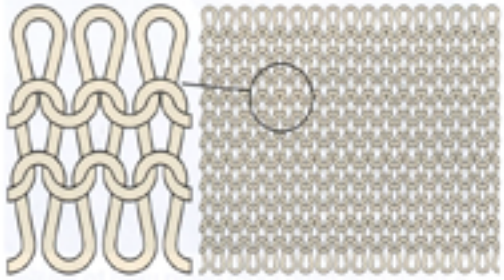
▲ A plain weave structure

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

D&T - Door Stop 2

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.

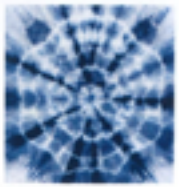
Follow the direction of the red thread on the diagram on how to correctly thread the sewing machine.

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

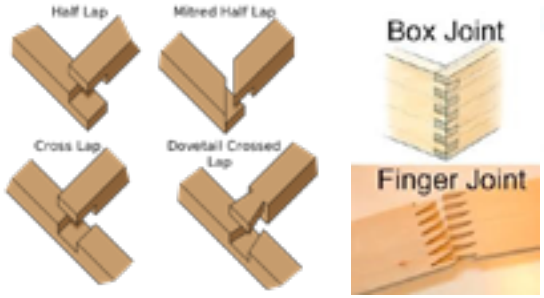
▼ The properties and uses of selected hardwoods

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 Vegetables

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

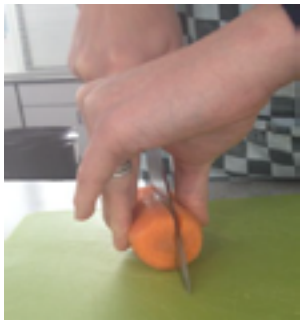
- Clean work surfaces
- Keep work area clean and tidy
- Keep raw and cooked foods apart to prevent cross – contamination.
- Use a red chopping board for meat and a green board for fruit and vegetables

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

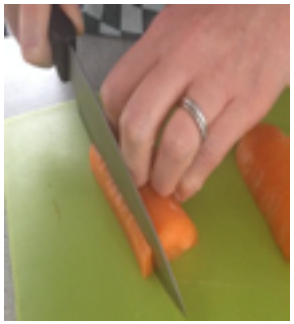
Use a dish cloth and scourer in warm, soapy water to wash up all your equipment. Place it on a clean sink area and then use a tea towel to dry it up.
The sink should be left clean and dry. No food scraps in the bottom of the sink.
Tea towel and dish cloth are placed in washing basket at the end of the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

Safe Cutting Techniques

Bridge Hold



Claw Grip

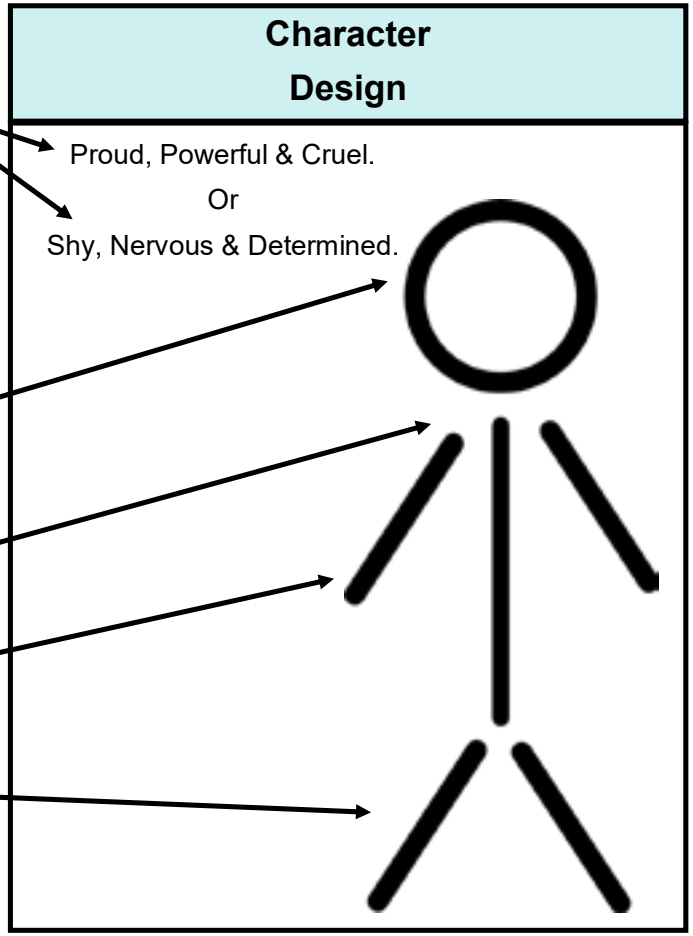


Year 7 - Drama - Term 2

Physical Skills

Term	Definition
Characteristics	Three words that sum up your character's personality i.e. Proud, Powerful & Cruel or Shy, Nervous & Determined.
Physicality	The way a character moves. This communicates their personality or mood.
Facial Expression	The emotion or attitude on your character's face.
Eye Line	Where are they looking? e.g. Up = Proud or Arrogant. Straight Ahead = Determined or Honest. Down = Nervous or Shy. Side to Side = Shifty or Untrustworthy.
Posture	The position of the body to communicate character. e.g. Standing with a straight back = High Status or Pride. Slumped = Lazy or Tired. Hunched Over = Low Status or Low Self-confidence.
Gesture	An expressive movement to show a feeling or characteristic. e.g. Fiddling with fingers = nervous. Punching fist into hand = aggressive.
Walk	The way you walk can express your character. e.g. Long strides = Confident. Small steps = Nervous. Walking in straight lines = Purpose and Determination. Walking in curves = Dreamy or Thoughtful.

Character Design



Vocal Skills

Term	Definition
Vocal Clarity	How clearly the audience can hear your voice.
Vocal Expression	the different heights the dancer reaches whilst performing.

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.

Scripted Skills

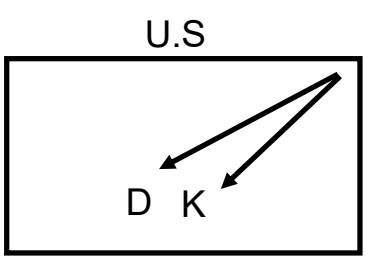
Term	Definition
Script	The things the characters do and say.
Dialogue	The words the characters **say** on stage.
Stage Directions	The things the characters **do** on stage.
Casting	Deciding which actor will play which character.
Highlighting	Highlighting your lines helps you find them quickly while you're rehearsing. Do not high-light your **name** or **stage directions**, only your
Read Through	Sit in a circle and read the play out loud, play-
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

Script Format

Term	Definition
Dialogue	Name: Dialogue, dialogue, dialogue.
Stage Directions	Written in *italics* or (brackets).
Stage Diagram	Draw a bird's eye view of your stage and draw arrows showing where everyone stands and moves.

Example Script

(A wood at night. Dave and Kelly enter from USL. Dave is struggling to carry a big, heavy looking backpack. Kelly is carrying an identical one and making it look easy.)

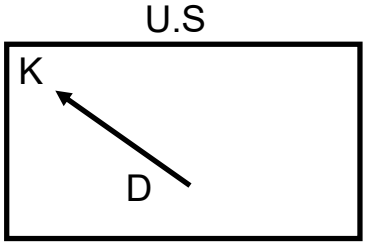


Dave: This bag is so heavy! I need a rest.

(He dumps his bag on the floor and sits down)

Kelly: Don't be such a wimp! Give it here.

(Kelly picks up the bag with ease and walks off USR)

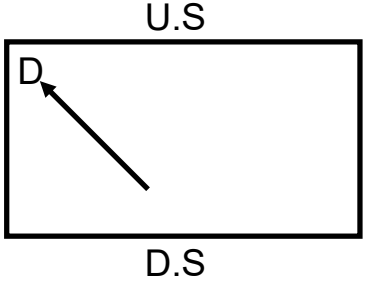


Dave: Fine! Go! I'm staying here and having a rest.

(In the bushes something growls)

Dave: Ummm… on second thoughts, wait for me!

(Dave jumps up and runs off after Kelly)



English Department

YEAR 7

Spring Term – Morphology

IMPORTANT TERMS

MORPHEME – A 'chunk' of a word that carries meaning. Morphemes are the smaller components that words are made of.

MORPHOLOGY – The study of how words are formed from smaller parts.

ETYMOLOGY – The study of where words come from and how they evolve over time.

PREFIX – A morpheme added to the beginning of a root word or morpheme to alter the meaning in some way.

SUFFIX – A morpheme added to the end of a root word or morpheme to alter it meaning in some way.

BOUND MORPHEME – A morpheme that cannot stand as a word on its own: it must be used in combination with another morpheme in order to form a word. Prefixes and suffixes are bound morphemes, as are most of the roots in the box to the right.

FREE MORPHEME – A morpheme that can stand as a word by itself, such as 'book'. While most of our bound morphemes come from Latin or Greek, many of our free morphemes can be traced to other ancient languages.

LATIN – An extinct language, spoken by the Romans, from which we get many of our morphemes.

GREEK – Another extinct language, older than Latin. We tend to see Greek morphemes in technical or scientific words.

ANGLO-SAXON – The language also known as Old English, spoken by the Germanic peoples who settled in England in the 5th century. This language evolved into the language we speak today.

DUAL VARIATION – A pair of synonyms (words with the same meaning) for which each of the two words can be traced back to a different language, e.g. *bring/carry; buy/purchase; weird/strange; weep/cry.*

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

ROOT MORPHEMES - GREEK ORIGIN

Root morpheme	Meaning
graph	write/draw
photo	light
phon	sound
morph	form/shape
chron	time

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 2 – MON COLLEGE

Les matières scolaires • School subjects

le français	French
le théâtre	drama
la géographie/la géo	geography
la musique	music
la technologie	technology
l'anglais (m)	English
l'EPS (f)	PE
l'histoire (f)	history
l'informatique (f)	ICT
les arts plastiques (m)	art
les mathématiques/maths (f)	maths
les sciences (f)	science

Les raisons • Reasons

C'est ...	It's ...
intéressant	interesting
ennuyeux	boring
facile	easy
difficile	difficult
génial	great
nul	rubbish
marrant	fun/funny
On a beaucoup de devoirs.	We have a lot of homework.
Le/La prof est sympa.	The teacher is nice.
Le/La prof est trop sévère.	The teacher is too strict.

L'emploi du temps • The timetable

le lundi	on Mondays
le mardi	on Tuesdays
le mercredi	on Wednesdays
le jeudi	on Thursdays
le vendredi	on Fridays
À [neuf heures] j'ai [sciences].	At [nine o'clock] I've got [science].
le matin	(in) the morning
l'après-midi	(in) the afternoon
le mercredi après-midi	on Wednesday afternoon
la récréation/la récré	breaktime
le déjeuner	lunch

Les mots essentiels • High-frequency words

à	at
et	and
aussi	also
mais	but
très	very
trop	too
assez	quite
un peu	a bit
pourquoi?	why?
parce que	because
beaucoup (de)	a lot (of)
tous les jours	every day
aujourd'hui	today

Les opinions • Opinions

Tu aimes/Est-ce que tu aimes ... ?	Do you like ... ?
J'aime ...	I like ...
J'aime beaucoup ...	I like ... a lot.
J'aime assez ...	I quite like ...
J'adore ...	I love ...
Je n'aime pas ...	I don't like ...
Je déteste ...	I hate ...
C'est ma matière préférée.	It's my favourite subject.
Moi aussi.	Me too.
T'es fou/folle.	You're crazy.

Quelle heure est-il? • What time is it?

Il est ...	It's ...
huit heures	eight o'clock
huit heures dix	ten past eight
huit heures et quart	quarter past eight
huit heures et demie	half past eight
neuf heures moins vingt	twenty to nine
neuf heures moins le quart	quarter to nine
midi	midday
minuit	midnight
midi/minuit et demi	half past twelve (midday/midnight)

La journée scolaire • The school day

On a cours (le lundi).	We have lessons (on Mondays).
On n'a pas cours ...	We don't have lessons ...
On commence les cours à ...	We start lessons at ...
On a quatre cours le matin.	We have four lessons in the morning.
On étudie neuf matières.	We study nine subjects.
À la récré, on bavarde et on rigole.	At break, we chat and have a laugh.
On mange à la cantine.	We eat in the canteen.
On finit les cours à ...	We finish lessons at ...
On est fatigués.	We are tired.

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

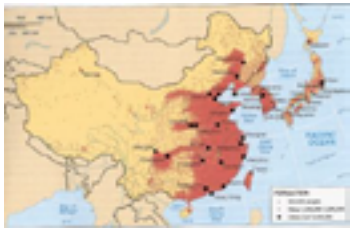
Year 7 Geography Knowledge Organiser Term 3 : China

Location of China

China is located in the Northern Hemisphere in the east of Asia. The capital city is Beijing and other large cities are Shanghai and Wuhan. Bordering countries include Mongolia, Nepal, Tibet and India. The Yangtze River starts in Tibet and flows east where it enters the East China Sea at Shanghai and the country covers approximately 9.6 million square kilometres.

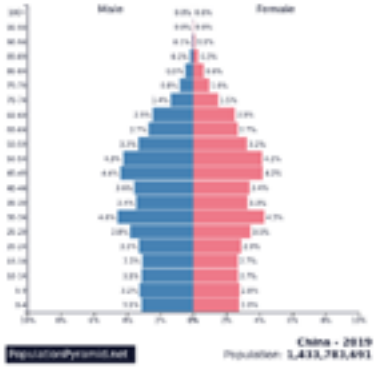
Population Distribution

China is the world's most populous country, with a population of around 1.428 billion. The population distribution of China is very uneven mainly due to the physical geography of the country. The eastern half of China has a high population density mainly because the land is fertile for growing crops. The west and the northwest has a low population density due to mountains and deserts. The majority of the population lives in the east near Shanghai and north east near Beijing.



Population Pyramids

A population pyramid is a is a graphical illustration that shows the distribution of various age groups in a population.



Rural-Urban Migration

Impacts of Migration in China

Pollution (noise, water, waste, air, visual)

- Nine out of ten of the world's most polluted cities are in China.
- Air pollution costs the Chinese economy $25bn a year in health costs
- Over half the concrete used in the world last year was poured into China - this threatens wildlife
- More than 70% of China's rivers and lakes were polluted from industry and untreated sewage. Large parts of China's longest river, the Yangtze, have been irreversibly polluted.
- Two million people had suffered diseases caused by drinking water with high arsenic content, including cancer.

Speak Like a Geographer

Sustainability, Population, Population density, Rural, Urban, Rural-Urban Migration, Population pyramids, Pollution, Social, Economic, Environmental, Choropleth Maps, Advanced Country (AC)
Emerging Developing Country (EDC), Low Income Developing Country (LIDC), Limitation, Reliability, Accuracy

Fieldwork

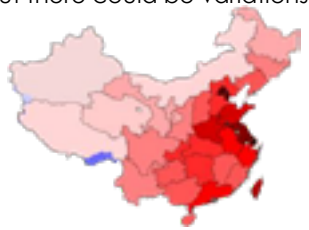
Skills

Choropleth Map:
Advantages:

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

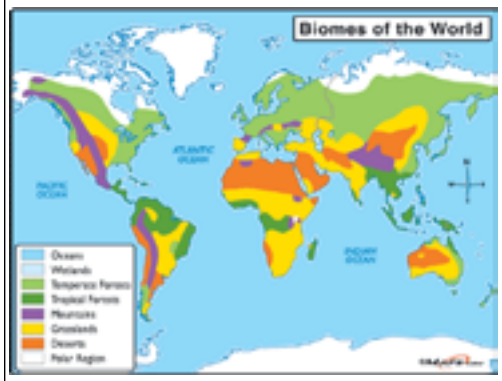
Disadvantages:

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



Year 7 Geography Knowledge Organiser Term 4 : Ecosystems

Biomes of the World



Be an #ExcellentGeographer:
What is the general pattern? Use lines of latitude
Name of oceans/seas
Give at least 2 country examples
Use compass directions

Types of Biomes

An ecosystem is a natural area in which plants, animals, and other organisms are linked to each other, and to the non-living elements of the environment.

A biome is a large scale ecosystem.

Each ecosystem is made up of biotic (living) and abiotic (non-living) elements.

Examples:
Coral Reefs: Australia, Indonesia
Tropical Grasslands: Ghana, Angola
Hot Deserts: Egypt, Morocco, Libya
Temperate Forests: UK, Japan

Coral Reefs

For coral to grow, there needs to be:

- Warm water all year around with a mean temperature of 18°C.
- The water needs to be clear and shallow.
- The water cannot be deeper than 30 metres. Beyond this, there is not enough sunlight for photosynthesis.
- A continental shelf. This is located on the seabed around the land, before the water depth increases.

Threats to Coral Reefs

Pollution from boats, walking on the reef, runoff from sunscreens and many other activities all damage the reef.

Corals cannot survive if the water temperature is too high.

Harmful tourists litter the reef and break pieces off to take home as a souvenir which kills the coral and the fish.

Destructive fishing methods like blast fishing or dynamite fishing damages the reef.

Responses to threats

There are five main gyres in the world's oceans. These trap plastic and rubbish and affect marine wildlife. Several attempts to reduce the amount of plastic in the ocean have been introduced.

1. A litre of light
2. The flip flop recycling company
3. The Plastiki

Speak Like a Geographer

Biotic, Abiotic, Flora, Fauna, Climate Zones, Coral reefs, Coral Bleaching, Threats, Overfishing, Goods, Services, Waste

Fieldwork

Skills

How to draw a field sketch

- Draw a frame to the size you want the sketch to be.
- Lightly draw lines dividing the frame into four quarters. These will help you to draw the rest of the sketch, acting as guidelines. The lines can be erased when the sketch is complete.
- Draw in the most important lines, such as rivers, coastline and the outline of hills.
- Draw in the less important features, such as communication lines.
- Add appropriate labels and annotations.
- Rub out the lightly drawn lines that divided the sketch to start with.

Year 7 History: Spring term

Part 1. Kings & Queens- Who's who?

Henry VII (1485-1509)

Henry VIII (1509-1547)
Wives- Catherine of Aragon, Anne Boleyn, Jane Seymour, Anne of Cleves, Katherine Howard, Katherine Parr.
Religion: Catholic then Church of England

Edward VI (1547-1553)
Religion: Protestant

Mary I (1553-1558)
Religion: Catholic

Elizabeth I (1558-1603)
Religion: Protestant (but Middle Way)

Part 3 key religious beliefs.

1. Catholic
Ruled by the Pope (Head of the Catholic Church). The pope (Papacy) was based in Rome.
Belief in transubstantiation- during communion the bread and wine actually become the body and blood of Christ.
Churches were highly decorated with colourful vestments, stained glass windows, services in Latin. No divorce allowed.

2. Protestant
Set up following Martin Luther's proclamation of revolt against the Catholic Church.
Henry VIII took England out of the Catholic church in 1534. Linked to his desire to divorce Catherine of Aragon.
Monasteries were closed so Henry could sell their land to pay his debts. This stopped poor people from seeking help.

Part 2. Main religious changes

Under **Henry VIII** England was a **Catholic** country. This was until he wanted to divorce Catherine of Aragon and marry Anne Boleyn. When the Pope refused to grant a divorce, Henry took England out of the Roman Catholic Church and made himself head of a new **Church of England**.

Edward VI chose to continue the **Reformation** and make England even more **Protestant**. Churches were whitewashed, stained glass and coloured vestments vanished. The Bible & Prayer Book were now in English.

Mary I changed England back to **Catholic.** She re-introduced ideas like transubstantiation and the Latin Mass. Under the reign of "Bloody" Mary many Protestants who refused to change religion were branded as heretics and burned to death.

Elizabeth I chose and "**Middle Way**" and her Religious Settlement confirmed England as a **Protestant** country but with tolerance for Catholics. Elizabeth's Religious Settlement made her Supreme ruler of the Church of England.

Part 4: Threats to the throne

Henry VIII: War with France & Scotland
Edward VI: Rebellions by Catholics over changes to the Prayer Book. Kett's rebellion in protest against changes to land ownership.
Mary I: Wyatt's Rebellion over Mary's plans to marry Philip of Spain.
Elizabeth I: Revolt of the Northern Earls, Ridolfi plot, Throckmorton plot, Babington plot & Attack by the Spanish Armada (1588).

Part 5: Spanish Armada

Causes: English pirates attacking Spanish colonies in the New World. Elizabeth sending help to Spain's enemies in Holland. Religion: Catholic Spain versus Protestant England.
Reasons for Spanish defeat: Improved English ship designs. Duke of Palma was late bringing Spanish army to Calais. Weather: storms drove Armada North where it was wrecked off coast of Ireland.

Key words: Tier 2

Monarch, battle, invasion, economic, religious, government, taxes, describe, account, judgement, conclusion, hypothesis, colony, war, vestments

Key words:Tier 3

Tudor, Reformation, transubstantiation, divorce, excommunication, Protestant, Catholic, tyrant, monastery, Supreme Governor, empire, Armada, Chronology, Significance, interpretation, causation, evaluate, narrative, explain, analyse, continuity, change,

Year 7 ICT Knowledge Organiser –Computer systems

A Computer Is **a programmable machine** which takes **in** data, **processes** it and then **outputs** the result.

Input Device	Bring data from the physical world into the computer system.EG Mouse, touchscreen.
Output Device	Bring data from the computer into the physical world. EG A monitor or speakers.
Storage Device	Stores data & files on. EG CD, Memory stick.
Hardware	Is the physical parts or components of a computer

CPU	Central Processing Unit is used to control and execute commands within the computer.
Hard drive	Storage which holds documents and programs when the computer is turned off.
Motherboard	The main board which connects all components to each other
RAM	Random Access Memory is volatile and holds open programs
ROM	Read only memory is non volatile and holds the computers boot up sequence

Spreadsheet
Excel or Google sheets is used to create documents which contain calculations and analyse data.

Function
=SUM(cell:cell)
=AVERAGE(cell:cell)
=MIN(cell:cell)
=MAX(cell:cell)

Cell	A single unit of storage within a spreadsheet program
Cell Reference	The specific location of a cell
Range	A cell reference which links to a group of connected cells (e.g. D2:F6)
Formula	An expression used in a spreadsheet to perform a calculation
Sort	Organises data into order
Filter	Setting conditions so that only certain data is displayed
Search	Look through data to find results that meet certain criteria

Software	This is the set of instructions for the computer to run a particular task or boot up, for example a word processor.
Application Software	Software which is installed onto the computer to perform a specific task such as creating documents or spreadsheets
Operating System	Comes already installed on your computer and is used to control the workings of a computer.
Utilities Software:	These carry out specific tasks which help the computer system run efficiently such as virus checking and Winzip.

Mathematics — Spring Term 1 — Year 7

Topic: Fractions

To calculate a **fraction of an amount** divide by the bottom number (**denominator**) and multiply by the top (**numerator**).

Add/subtract: rewrite using a common denominator, add or subtract the **numerators**, simplify if needed

Multiplying: multiply the tops (numerators), multiply the bottoms (denominators), simplify if possible

Dividing: Flip the second fraction and change the ÷ to a ×, then multiply the fractions

Video Links: Fraction of an amount | Add/Subtract | Multiply | Divide

Topic: Area and Perimeter

The **perimeter** is the total distance around the outside of a shape (measured in ***mm***, ***cm***, **m**, etc.) To calculate the **perimeter**, total all of the lengths of the sides of a shape.

The **area** is the space inside a shape (in **mm²**, **cm²**, **m²**, etc.)

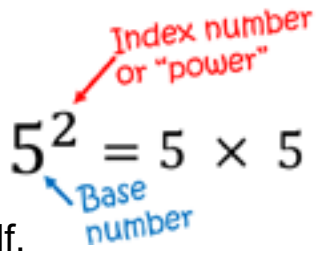
Area formulae: **Rectangle** or **square** = $\boldsymbol{length \times width}$

Triangle = $\frac{\boldsymbol{base \times height}}{\boldsymbol{2}}$ **Trapezium** = $\frac{\boldsymbol{(a+b) \times h}}{\boldsymbol{2}}$

Video Links: Perimeter | **Area of a** Rectangle | Triangle | Trapezium

Topic: Indices

Index numbers (or powers) or show as small number next to a base number. It is a quick way of showing that a number is to be multiplied by itself.



Rules of indices:

When **multiplying,** alike base numbers together, ADD the powers.

When **dividing,** alike base numbers together, SUBTRACT the powers

Video Links: Index Laws | Indices (numbers)

Topic: Basic constructions

In maths we sometimes need to draw accurate drawings of angles or shapes, these are called **constructions**. We use maths equipment to do this, such as a **pencil**, **ruler**, **protractor** and a **pair of compasses**.

Bisect – to cut in half

Perpendicular – at right-angles (90°) to one another

Video Links: Angle Bisector | Perpendicular Bisector

Triangles: SSS | ASA | SAS

Mathematics

Spring Term 2

Year 7

Topic: Probability

Probability is the chance of something happening.

All **probabilities** are a value between 0 and 1.

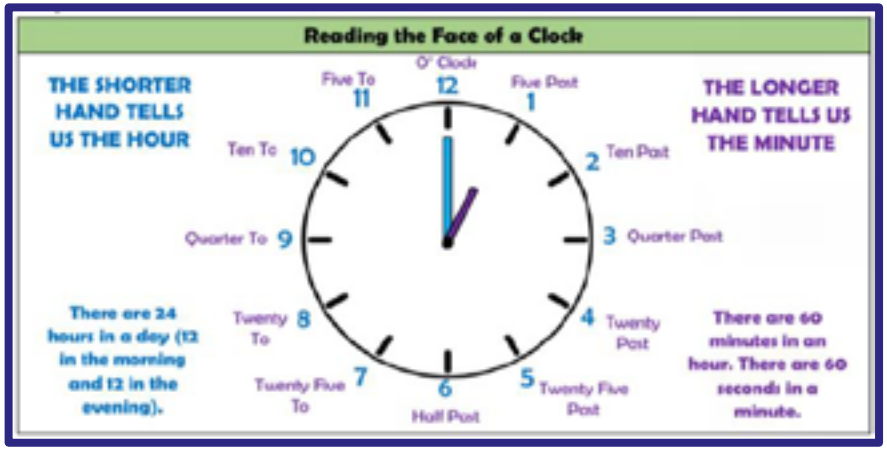
Probabilities can be written as either a **decimal**, a **fraction** or a **percentage**.

Theoretical probabilities are calculated using this formula:

$$probability = \frac{number\ of\ ways\ of\ 'winning'}{total\ number\ of\ possible\ outcomes}$$

Video Links: Probability Sample Space Relative Frequency

Topic: Time and reading scales



Video Links: Calculations with time

Topic: Ratio and scale

A **ratio** shows the relationship between 2 values.

Equivalent ratios can be found by multiplying/dividing each part by the *same* amount.

Example: **2 : 3** is said as, "*Two to three*", and it means 2 parts to 3 parts.

The ratio **4 : 6** is equivalent to **2 : 3** (both sides have been multiplied by 2.)

Video Links: Simplify a Ratio Sharing in a Ratio Find a missing part of a ratio

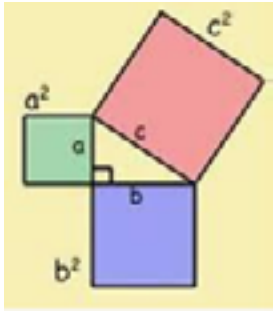
Topic: Pythagoras

Hypotenuse: this is the longest side in a right-angled triangle. It is opposite the right-angle.

In any right angled **triangle** the square of the **hypotenuse** is equal to the sum of the squares of the two short sides.

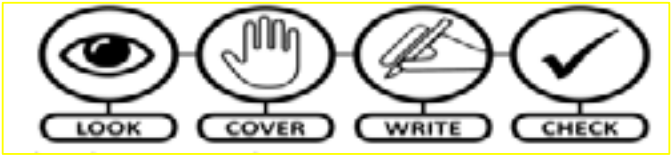
$$a^2 + b^2 = c^2$$

Where a and b are the two shorter sides, and c is the hypotenuse (the longest side)



Video Links: Using Pythagoras' Theorem Show that a Triangle is Right-Angled

KNOWLEDGE ORGANISER – Year 7 – Introduction to Classical Music



Keywords

Pulse	A steady beat.
Orchestra	A large ensemble (group) of musicians which includes string, wind and percussion instruments.
Canon	The melody is played by lots of different instruments, but starting one after the other. A bit like a round e.g. Row, Row, Row Your Boat.
Ensemble	A group of musicians
Major	Music that sounds happy/cheerful
Minor	Music that sounds sad/serious
Forte (*f*)	Loud
Piano (*p*)	Quiet
Note	A single pitch
Chord	Two or more notes played at the same time.

Instrument Families

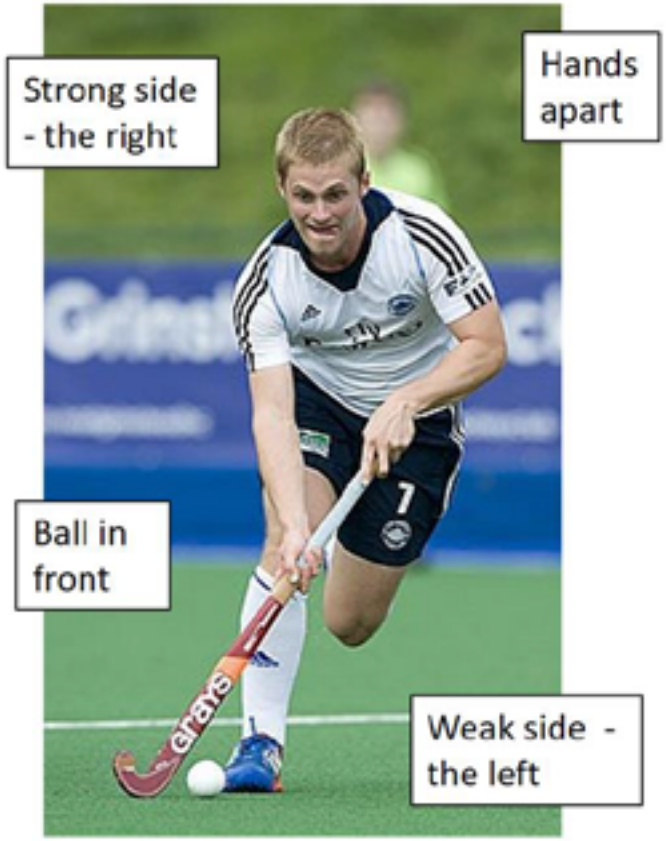
The smaller the instrument, the higher in pitch it is. The bigger the instrument, the lower in pitch it is. However, the harp/xylophone/chimes have lots more strings/elements so can play both high pitched and low pitched notes.

Tick when complete	Recommended Listening – make a list of all the instruments you hear.
	The Imperial March (Darth Vader's Theme) from Star Wars. https://www.youtube.com/watch?v=-bzWSJG93P8
	Ride of the Valkyries by Richard Wagner https://www.youtube.com/watch?v=GGU1P6lBW6Q
	Titanium/Pavane Cover by The Piano Guys https://www.youtube.com/watch?v=fz4MzJTeL0c

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

HOCKEY

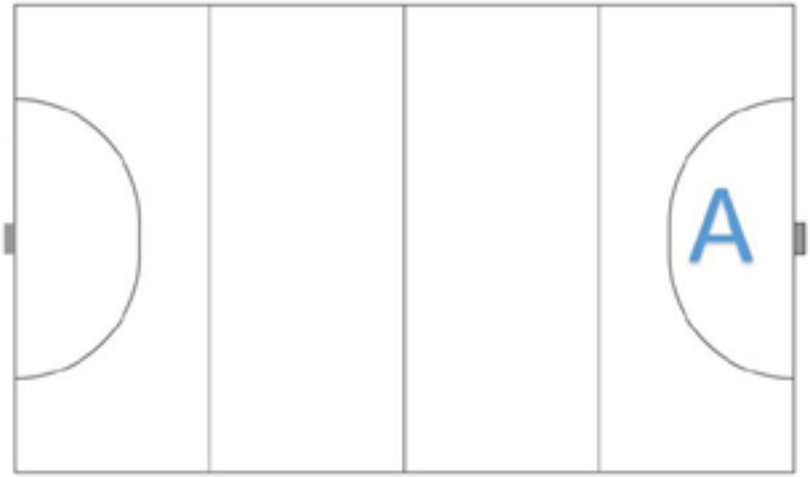
IMPORTANT TECHNIQUES



Overview of the rules

The rules of hockey are very similar to the rules of football except that players must use sticks instead of their feet to play the ball. There are 11 players on a team made up of a goalkeeper, defenders, midfielders and attackers.

1. Use the "front" (flat) side of the stick.
2. Cannot use feet.
3. At re-starts or free hits, the defending team must stand 5m from the ball.
4. Can only score from inside the "D" (A).



BASKETBALL

Rules for Offence

When a player has the basketball (offence) there are certain rules they must follow:

1. The player must bounce the ball with one hand while moving both feet. If both hands touch the ball or the player stops dribbling, the player must only move one foot.

2. Once a player has stopped dribbling they cannot start another dribble. A player who starts dribbling again is called for double-dribble.

3. A player can only start another dribble after another player from either team touches or gains control of the basketball.

Defensive Rules

The team on defence is the team without the basketball.

1. The main rule for the defensive player is not to foul. This means the defensive player may not touch the offensive player in a way that causes the offensive player to lose the ball or miss a shot.

Rules for everyone

1. Although the foul rule is described as a defensive rule, it applies exactly the same to all players on the court.

2. Basketball players cannot kick the ball or hit it with their fist.

3. The positions in basketball are just for basketball strategy and there are no positions in the rules.

IMPORTANT TECHNIQUES

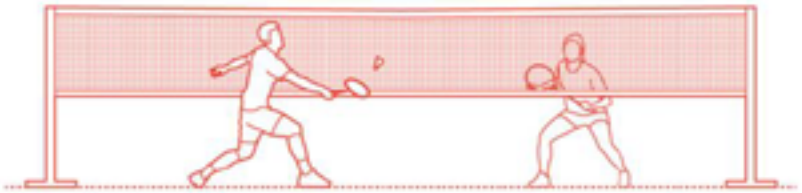
BADMINTON

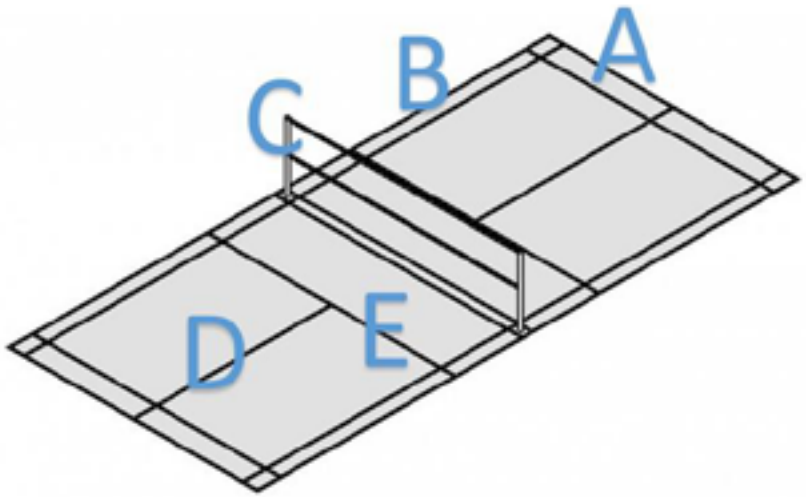
Overview of the rules

Badminton is a net game and played as singles (two opposing players) or doubles (two opposing pairs). The aim of the game is to win points by hitting a shuttlecock across the net and into your opponent's court forcing your opponent to make an error and be unable to return the shuttlecock back.

The basic rules

1. You must serve underarm
2. A serve must reach the front service line
3. If the shuttle lands **on** the edge line of the court, this is IN
4. If you win a rally, **you** get a point added to your score and **you** serve next
5. You can only hit the shuttle once in a row
6. In a full game, the game is the first player to 21 points





A: Baseline: the end of the court
B: Side line: the side edge of the court
C: The net
D: Centre line: the middle of the court
E: Service line: where a rally is started

NETBALL

Rules and skills of Netball

1. 3 seconds on the ball – Players are only allowed to have the ball in possession for 3 seconds.

2. Start of a game – a game starts with a pass that must be received in the centre third. This is also how a game re-starts.

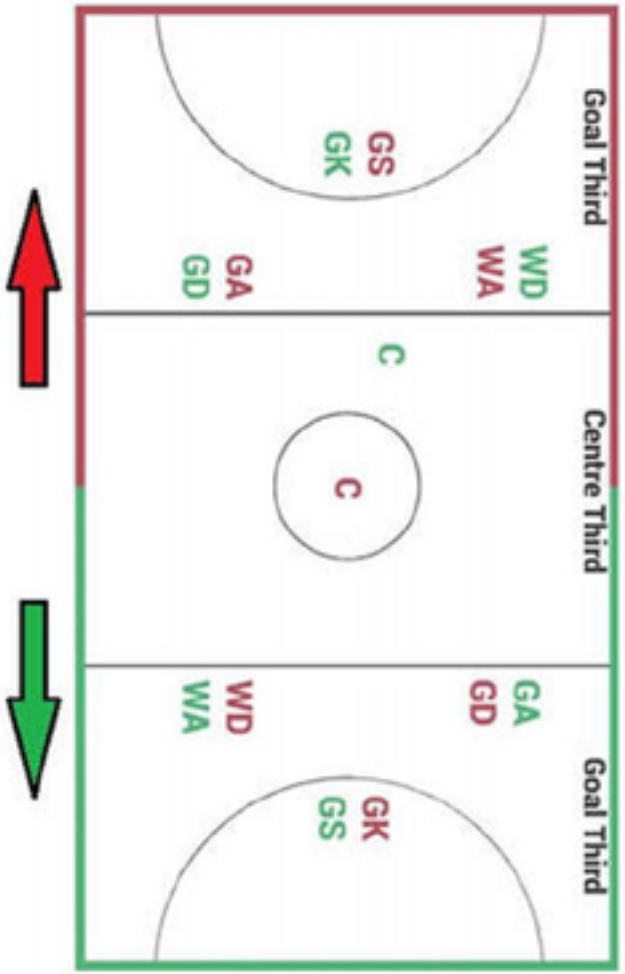
3. Shooting –Players can only shoot form inside the "D".

4. Footwork – Players cannot more their landing foot (first foot to hit the floor) when they have the ball.

5. Contact – contact is not allowed in netball

6. Penalty pass – Awarded for major fouls: Contact and obstruction.

7. Distance – Defending players must be 0.9m away from the ball before putting up their arms to defend. 2.



The starting positions of the players in netball.

GS = Goal Shooter
GA = Goal Attack
WA = Wing Attack
C = Centre
WD = Wing Defence
GD = Goal Defence
GK = Goal Keeper

RUGBY

Overview of the general rules

Rugby has may variations but the aim of the game is very simple - use the ball to score more points than the other team.

1. Scoring a "try". A try is scored when the ball is placed down on the playing surface with pressure in the in goal area by the attacking team.

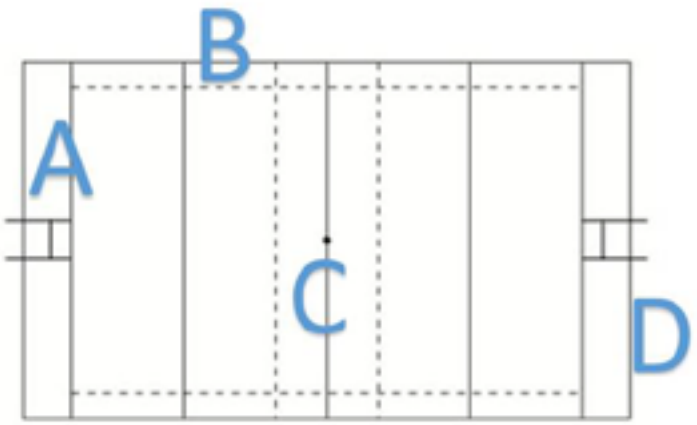
2. Moving the ball. To move the ball toward the line you can run with it, kick it and pass it. However, passing or knocking the ball *forwards* (unless kicked) is not allowed.

3. Kicking . Kicking is allowed but must kicked from the hands and not while the ball is on the floor.

4. Offside. Players are not allowed to receive the ball if they were in front of the ball when it was passed or kicked.

5. Penalties. A penalty can be awarded by the referee if any player breaks the laws of the game, this will lead to a turnover of possession. The opposition can choose to tap and run, tap and pass or kick to resume the game.

6. Starts and re-starts. If the ball goes out of play the ball is passed back in by the opposition. The ball is kicked from the half way line forward at the start of the match and after each try.

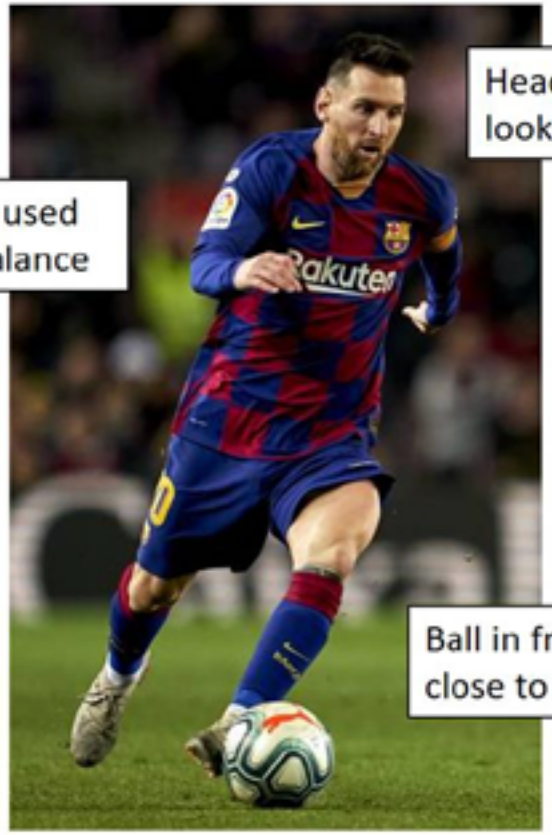


A – Try line and in-goal area.
B – Side line
C – Half way line
D – Dead ball line, the end of the pitch.

1. Tackling rules:
2. The tackler must grasp/ wrap the ball carrier below the armpits, on the shirt, shorts or around the legs. The grasp must be simultaneous with, or prior to, shoulder contact.
3. The tackler must not shoulder barge their opponent.
4. When a tackle is called the player can pass the ball to team mate or present the ball on the ground for a team mate.
5. The ball is not allowed to be contested by the opposition.
6. TOUCH VERSION – use two hands to touch the player at the waist. They then have 2-3 seconds to pass or present the ball.

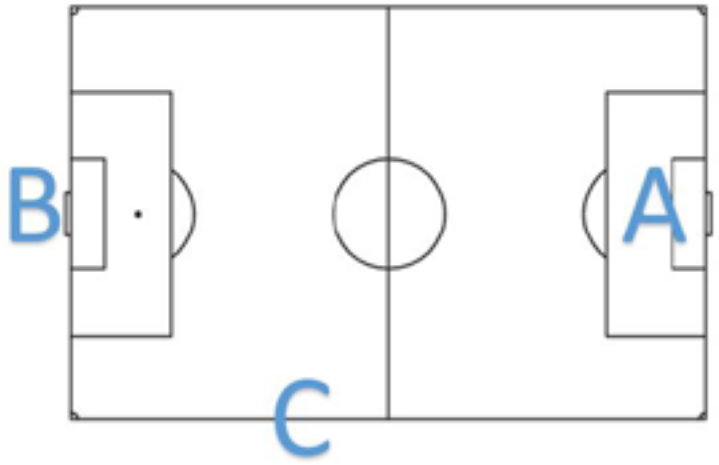
FOOTBALL

IMPORTANT TECHNIQUES



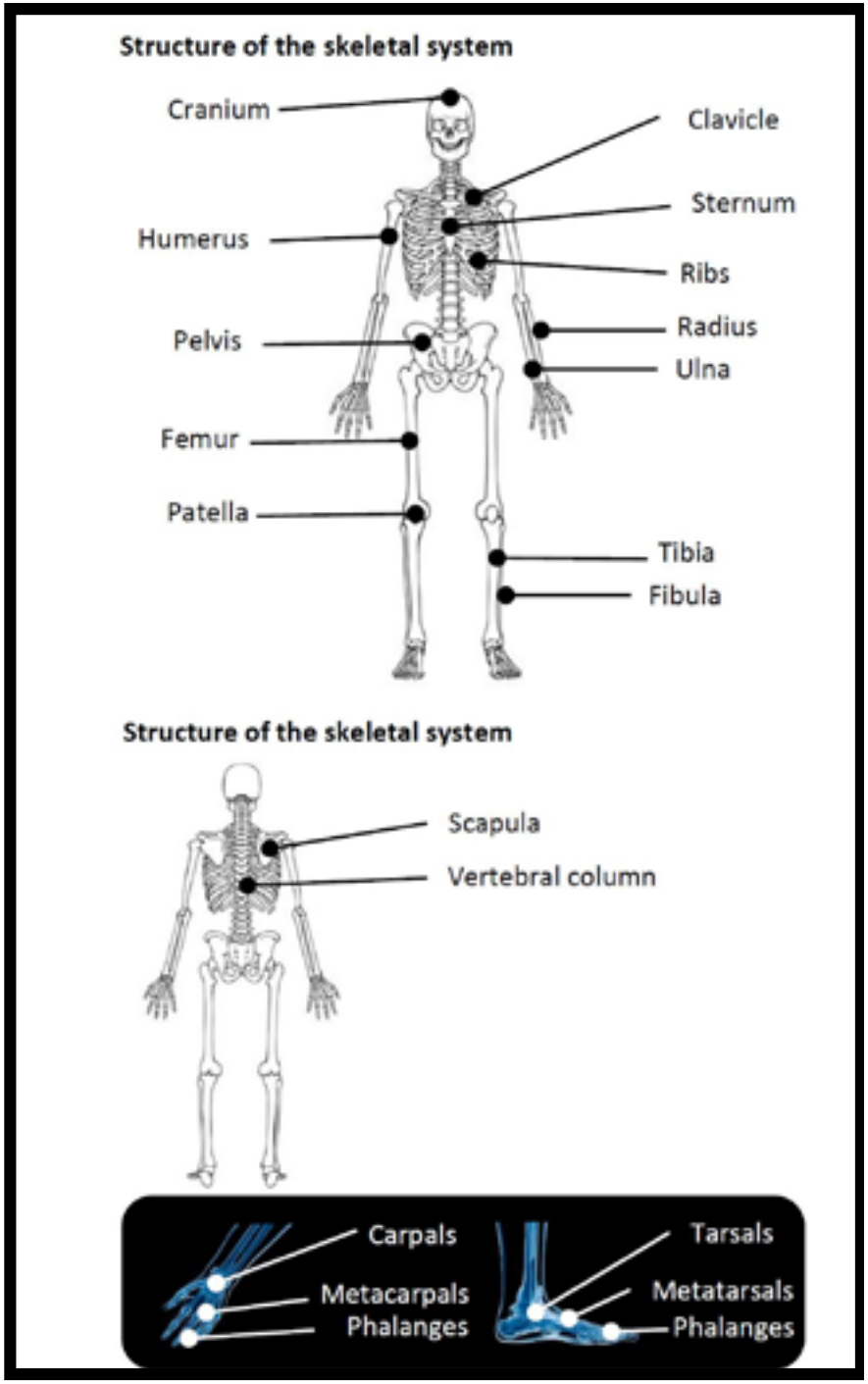
Overview of the rules

1. A football match is played by two teams, with each allowed no more than 11 players on the field (9-a-side at under 12).
2. All players must use their feet head or chest to play the ball. Only the goalkeeper is allowed to use their hands, and only within their *designated goal area (box A)*.
3. The aim of the game is to outscore the opposition. A goal (score) is achieved by kicking or heading the ball into the *opposition team's goal (B)*.
4. If the ball touches or crosses the *side line (C)*, it is thrown back in by the team that was not the last to touch the ball.
5. The game is controlled by a central referee. They award free kicks and penalties when rules are broken.



PE - Theory - Part 1

Health-related components	Cardiovascular endurance	The ability of heart and lungs to deliver oxygen to the working muscles.	Multi-stage Fitness Test
	Muscular Strength	The ability to overcome resistance.	Grip strength dynamometer Test
	Muscular Endurance	The ability of a single muscle or group to undergo contractions avoiding fatigue.	Sit up Test
	Flexibility	The range of movement possible at a joint.	Sit and Reach Test
	Body Composition	A comparison of the percentage of bone, fat, water and muscle within the body.	BMI
Skill-related components	Speed	The maximum rate at which an individual can perform a movment or cover distance.	30m Sprint Test
	Power	Explosive strength is the product of speed and strength. Speed x strength.	Vertical Jump Test
	Agility	The ability to move and change direction at speed while maintaining control.	Illinois agility test
	Coordination	The ability to use two or more body parts smoothly and efficiently.	Wall throw test
	Balance	The maintenance of the centre of mass over the base of support.	Stork Stand Test
	Reaction Time	The time taken to initiate a response to a stimulus.	Ruler Drop Test



PE - Theory - Part 2

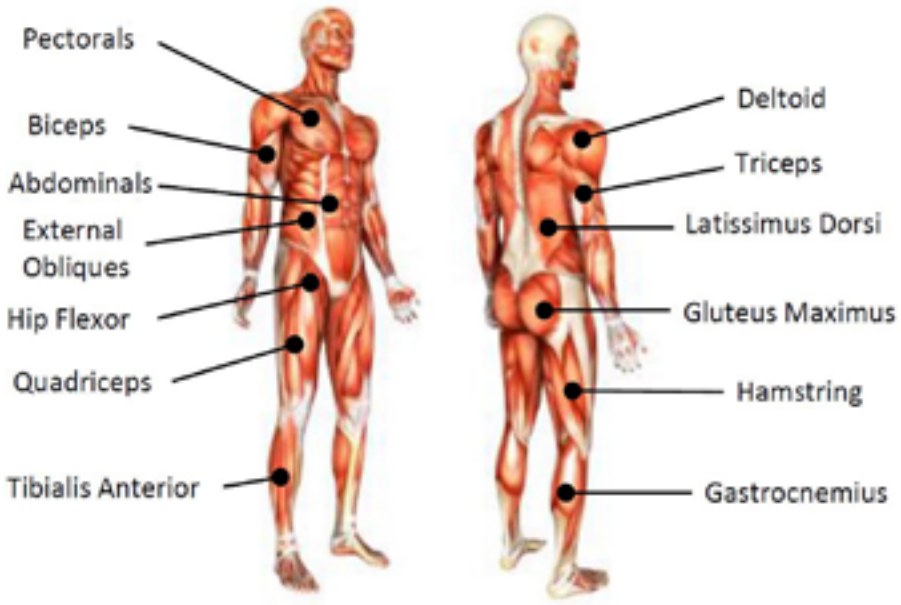
Phases of a Warm Up (1)			
	Term	Phase	Description
1	Pulse Raiser	First	**Light continuous** activity such as slow jogging, is used to **increase heart rate** and **blood flow**. Muscles, ligaments and synovial fluid in the joints are warmed, increasing flexibility
2	Stretching	Second	**Stretching** the **main muscle groups** and **joints** increases their elasticity and **mobility** so that they are **less likely** to be strained.
3	Skills Specific	Third	**Sport specific** drill performed to focus on muscle groups that come under particular stress in the planned activity.

Principles of a Warm Up (2)		
	Principle	Description
1	Prepare the Body	To **gradually prepare** the **body** and **mind** for physical activity.
2	Increases Body Temperature	**Makes muscles, tendons and ligaments more elastic** increasing range of movement and **reducing the risk of injury at a joint or in a muscle.**
3	Increase Blood Flow	By increasing the heart rate, blood flow increases resulting in an **increase in the oxygen being supplied to muscles.**
4	Injury Prevention	To ensure that muscles are **stretched and prepared for physical activity** to avoid injuries such as strains.

Principles of a Cool Down (3)		
	Principle	Description
1	Prevent Muscle Soreness	To **gradually** allow the body and mind for **recover** from **physical activity.**
2	Reduce Body Temperature	Allows **muscles** to **cool down slowly** reducing the chance of tightness and muscle ache to set in after activity.
3	Reduce Heart Rate	Allows the body to slowly return to its **resting state.**

Immediate Effects of Exercise on the Body (1)		
	Immediate Effects of Training	Body System
1	**Increase** temperature of **synovial fluid**	**The Skeletal System**
2	**Increased** flexibility	
3	**Rise** in muscle **temperature**	**The Muscular System**
4	**Increased** blood flow to muscles	
5	**Increased** flexibility	
6	Muscle **soreness (DOMS)**	
7	**Increased** heart rate, cardiac output	**The Cardiovascular System**
8	**Blood diverted to muscles** from digestion and other systems **(vascular shunting)**	
9	**Increase** in **blood pressure**	
10	**Increased** rate of breathing	**The Respiratory System**
11	**Increased** rate of **gaseous exchange**	
12	**Increased** depth of breathing	

Structure of the muscular system



PSHE - Nuisance in the Community & Cycling Safety

Harrow Way PSHE Department – Year 7 – Nuisance in the Community and Cycling Safety

Define:
Nuisance
A person or thing causing inconvenience or annoyance.

Define:
Anti-Social Behaviour Order
Given out by a court, to stop a person from behaving in certain ways or doing certain things. It's not meant to be a punishment - the idea is to prevent further distress and alarm caused by **antisocial behaviour**.

Define:
Criminal Damage
A person who, without lawful excuse, destroys or damages any property belonging to another, intending to destroy or damage any such property, or being reckless as to whether any such property would be destroyed or damaged

Define:
Concussion

A mild traumatic brain injury (TBI) can occur after an impact to the head or after whiplash type injury that causes your head and brain to shake quickly back and forth.

Types of Anti-Social Behaviour

- Littering
- Dog Fouling
- Bullying
- Graffiti
- Swearing
- Vandalism
- Knock knock run
- Shop lifting
- Trespassing
- Arson
- Excessive Noise
- Joy Riding

Reasons why people choose not to wear a helmet

1. Messes up their hair
2. Not cool
3. Helmets can be expensive
4. Too hot a sweaty
5. Never happen to me attitude
6 Show off to friends

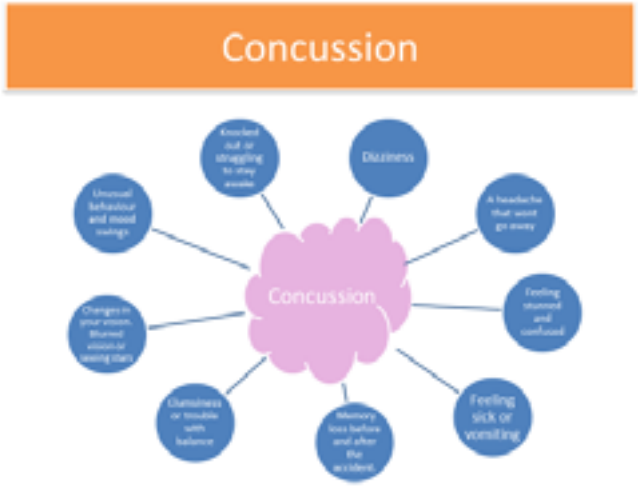
Effects of Anti-Social Behaviour

Victims of anti-social behaviour can become frightened of leaving their home and even feel unsafe when in their homes. Not being able to simply walk to the shops and back or walk to their car to go out has a serious impact on the quality of life of individuals.

Anti-social behaviour also has an impact on communities as a whole as it can often lead to the degradation and neglect of areas. The standard of living in an area is negatively affected which destroys the spirit and pride of communities and makes people feel neglected and powerless.

People begin to move from the area and businesses close down. The likelihood of more anti-social behaviour increases and an environment is created where more serious crime can take hold.

Consequences of not wearing a cycle helmet



PSHE - Keeping Safe

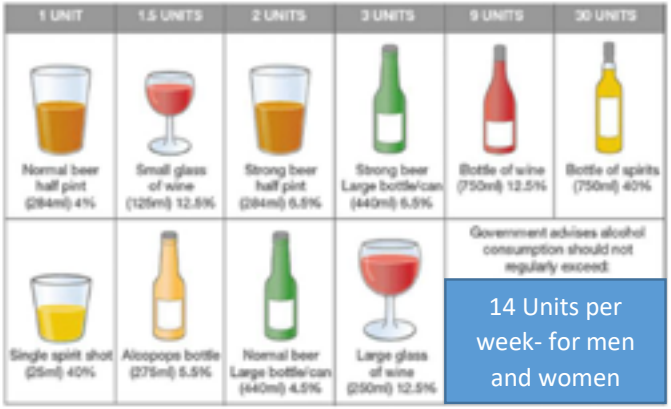
Harrow Way PSHE Department – Year 7 – Keeping Safe

Define:
Alcohol
While some drinks have more alcohol than others, the type of alcohol in all alcoholic drinks is the same –it's a type of alcohol called ethanol. Alcohol is a colourless, odourless and inflammable fluid.

Define:
Drug
A medicine or other substance which has a physiological effect when ingested or otherwise introduced into the body.

Define:
E-Safety
Strategies and systems to help people stay safe

Define:
Smoking
The action or habit of inhaling and exhaling the smoke of tobacco or a drug. Usually through cigarettes or cigars.



Prescription Medications
The law surrounding the selling of or sharing of prescription medications is ambiguous and is often linked to the type of drug/medicine that is being sold.

If the medicine is on the controlled substance list (e.g. morphine, amphetamines and benzodiazepines) then the person supplying can be subject to the punishments which are for that class of drugs.

It is extremely dangerous to share prescription drugs because of the possible side effects and impacts of other medications that are being taken.

Effects Of Nicotine
Nicotine is both a sedative and a stimulant.

When a body is exposed to nicotine, the individual experiences a "kick." This is partly caused by nicotine stimulating the adrenal glands, which results in the release of adrenaline.
This surge of adrenaline stimulates the body. There is an immediate release of glucose, as well as an increase in heart rate, breathing activity, and blood pressure. Indirectly, nicotine causes the release of dopamine in the pleasure and motivation areas of the brain.

Class	Type of drug
Class A	Heroine, Crack Cocaine, Meth, LSD, Ecstasy,
Class B	Cannabis, Speed, Ketamine
Class C	Anabolic Steroids, Khat,
No Class	Alcohol, Tobacco, Cough medicine, Paracetamol, Ibuprofen, Solvents

Top 10 Rules for staying safe online

1. Don't post any personal information online –like your address, email address or mobile number.

2. Think carefully before posting pictures or videos of yourself. Once you've puta picture of yourself online most people can see it and may be able to download it, it's not just yours anymore.

3. Keep your privacy settings as high as possible.

4. Never give out your passwords.

5. Don't befriend people you don't know.

6. Don't meet up with people you've met online. Speak to your parent or carer about people suggesting you do.

7.Remember that not everyone online is who they say they are

8. Think carefully about what you say before you post something online.

9. Respect other people's views, even if you don't agree with someone else's views doesn't mean you need to be rude.

10. If you see something online that makes you feel uncomfortable, unsafe or worried: leave the website, turn off your computer if you want to and tell a trusted

Year 7 Knowledge Organizer Spring Term

Religions which are monotheistic; Christianity, Islam and Judaism. They all believe in the SAME God, Allah, G-d

The Parable of the Good Samaritan

1. Man walking along mugged.
2. Priest and a Levite walked past him.
3. Samaritan helped him.
4. Samaritan belonged to a tribe fighting with the tribe of the injured man.
5. JC told this parable to *'love thy neighbour'*

agape — *What is it?*

Sacred; something to do with God/gods therefore should be treated with respect.

Story of Exodus sacred to Jews because…

1. *G-d rescued Israelites from slavery by the Egyptians.*
2. *G-d provided a homeland for them.*
3. *G-d parted the Red Sea so they could reach their homeland.*

Jews celebrate this time at Passover with the Seder plate and remember all that G-d did for them.

Key Words

- Monotheistic; belief in 1 God

Attributes of God

- Omnipotent; *all powerful*
- Omnipresent; *everywhere*
- Omniscient; *all seeing*
- Omnibenevolent; *all loving*
- Transcendent; *beyond human understanding/ comprehension*
- Immanent; *within everyone and everything in the world.*
- For Christianity, Islam and Judaism God is all these.

Year 7 Knowledge Organizer
Spring Term

Who is he?
Read the boxes, then cover and test yourself to see what you remember.

Life	Teachings
Born to a virgin in Bethlehem Preached in Israel Jewish man Crucified in Jerusalem Resurrected	Parable of the Sheep and Goats Agape *'Love thy neighbour'*

Who is our neighbour?

Everyone, even our enemies.

A miracle is something which breaks the laws of science. An example would be a human being able to fly. Jesus did many miracles.

Marriage at Cana

When JC attended the marriage there was little food so he told the people to continue pouring the water, when it came out of the jug it was wine. Why does this show agape?

Omnipotence means all-powerful. Monotheistic theologians regard God as having supreme power. This means God can do what he wants. It means he is not subject to physical limitations like man is. Being omnipotent, God has power over wind, water, gravity, physics, etc. God's power is infinite, or limitless.

Omniscience means all-knowing. God is all all-knowing in the sense that he is aware of the past, present, and future. Nothing takes him by surprise. His knowledge is total. He knows all that there is to know and all that can be known.

Theist	Atheist
Someone who believes in God	Someone who doesn't believe in God

What is the proof? Where would the proof be found?

He is the image of the invisible God, the firstborn of all creation. [16] For by him all things were created, in heaven and on earth, visible and invisible, whether thrones or dominions or rulers or authorities—all things were created through him and for him. [17] And he is before all things, and in him all things hold together.

Year 7 Knowledge Organizer
Spring Term

The 16th century reformation is the most important event in British history and affects us even today.

1. There was one church (Catholic Church) and everybody in Europe belonged to it.

1. Henry VIII wanted a divorce from his first wife so he could marry Anne Boleyn. The Catholic Church doesn't allow divorce.

1. In Germany Martin Luther was speaking out against the Catholic Church as it made money selling 'passes' for people to get into heaven.

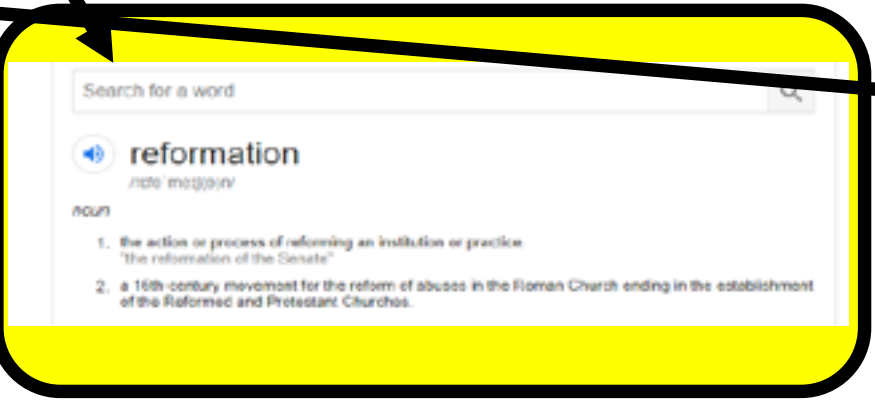
1. Luther read the Bible and discovered there were practises which the Catholic Church used which had no scriptural basis .

1. Henry decided to make himself the Head of the Church in England rather than the Pope thereby 'splitting' from Europe and the Catholic Church.

1. Some countries formed their own church (The Protestant Church) because they protested against the corruption of the Catholic Church.

Catholic Countries

Protestant Countries



Who was Martin Luther?

Who was Henry VIII?

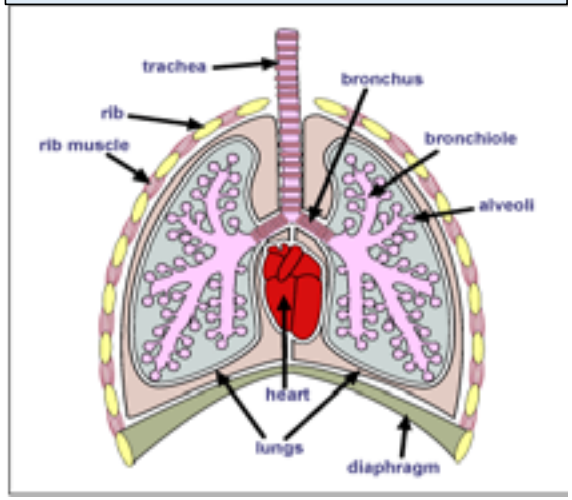
What role did they play in the reformation?

Systems – Breathing and respiration

Section 1 Definitions

1	**Alveoli**	Tiny air sacs in the lungs where gas is exchanged during breathing
2	**Bronchi**	Tubes (2) that take air from the trachea to each lungs
3	**Bronchioles**	Small branches from the bronchi that distribute air to the air sacs (alveoli)
4	**Diaphragm**	Sheet of muscle below the lungs that contracts and relaxes to allow the lungs to expand or decrease in volume
5	**Lungs**	Organ in thorax(chest) where gas exchange happens
6	**Trachea**	Windpipe – takes air from the mouth/nose to the lungs
7	**Respiration**	Process in living things in which oxygen is used to release energy from food (glucose = sugar) **Glucose + oxygen → carbon dioxide + water + energy**
8	**Mitochondria**	Organelles in the cytoplasm of all cells where aerobic respiration takes place
9	**Aerobic respiration**	Respiration that requires oxygen. Occurs in all living organisms
10	**Anaerobic respiration**	Respiration without oxygen (produces less energy) **Glucose→ lactic acid**
11	**Fermentation**	Anaerobic respiration in plants and fungi. **Glucose → ethanol + carbon dioxide**
12	**Circulatory system**	Consists of the heart, blood vessels and blood. It function is to transport substances eg oxygen / food around the body

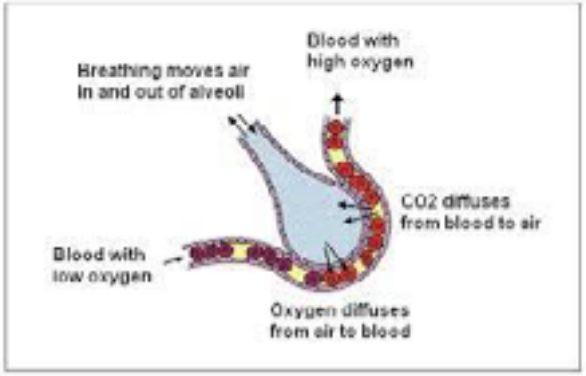
Section 2 – The respiratory system



Section 3 Breathing

How does each listed feature change or act?	Inhaling (inspiration) Breathing in	Exhaling (expiration) breathing out
The diaphragm	Contracts / moves down	Relaxes /moves up
Intercostal muscles (rib muscle)	Contract – move the ribs up and out	Relax – ribs move down and in
Volume of chest cavity	increase	decreases
Pressure in chest cavity	decreases – air moves in	increases – pushes air out

Section 4 Gas exchange



The Alveoli are adapted for gas exchange in the lungs.
They have:
1. **A large surface area**
2. **Thin cell walls**
3. **Surrounded by lots of blood capillaries**

Oxygen diffuses from the air in the alveoli into the blood
Carbon dioxide diffuses from the blood into the air in the alveoli

Section 5 Aerobic respiration

Aerobic Respiration

Respiration is a series of reactions that takes place in the cells of animals and plants.
Energy is released in the reaction. The mitochondria, found in the cell cytoplasm, is where respiration happens.

Glucose + Oxygen → Carbon Dioxide + Water (+energy)

$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$

'Energy' is in brackets because it is not a substance. This type of respiration, where oxygen is used, is known as aerobic respiration. Oxygen (from breathing) is carried from the lungs to all the cells of the body in the blood. The waste products (carbon dioxide and water) are taken away from the cells by the blood and breathed out from the lungs.

Science - Chemistry - Acids & Alkalis

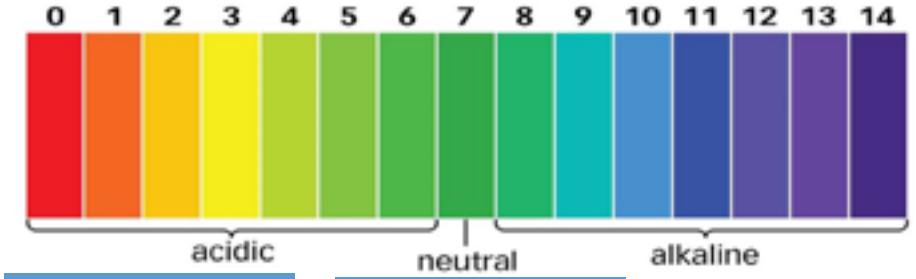
Section 1. Acid and Alkali	Definitions
1. Acid	Substance with a pH value less than 7 contains H^+ ions
2. Alkali	Soluble base, pH value greater than 7 contains OH^- ions
3. Base	Substance with a pH value greater than 7
4. Soluble	Will dissolve in water
5. Neutral	Substance with a pH value of 7

Section 2. Indicators	Definitions
6. Indicator	Substance that changes colour to identify an acid or alkali
7. Litmus paper	Red litmus goes blue in an alkali, Blue Litmus goes red in an acid
8. Universal Indicator	Green liquid form shows full scale of pH values from 0 to 14
9. pH probe	Digital reading removes human error to improve accuracy

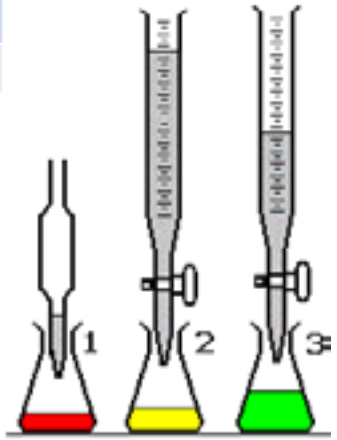
Section 3. Neutralisation	Definitions
10. Neutralisation	When an acid and alkali mix together to make neutral substance with pH 7. It is an exothermic reaction
11. Titration	An accurate method to carry out neutralisation
12. M.A.S.H	Metal + Acid > Salt + Hydrogen
13. Gas test for hydrogen	A lit splint goes pop
14. Making soluble salts	Metal Oxide + Acid > Salt + Water

Section 4. Working Scientifically	Definitions
15. Evaluate	Compare advantages and disadvantages make a decision
16. Accuracy	How close the measurement is to the true value
17. Resolution	Size of the interval of measurement e.g. 0.5 ml or 1 ml
18. Precision	Getting the same measurement each time
19. Anomalies	"Outliers" unexpected results often due to human error

Acids and alkalis



11. Titration



7. Litmus Paper

13. H_2 gas test

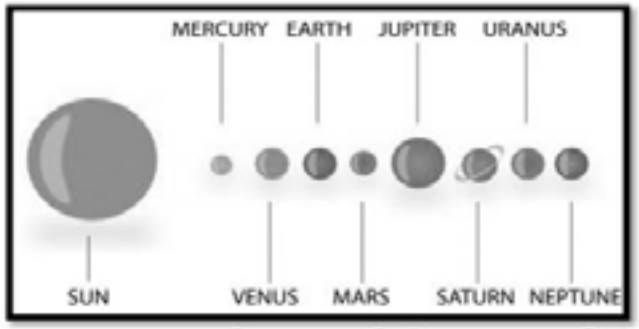
Naming Salts

Acid	Name of salt	Example
Hydrochloric (HCl)	Chloride	Magnesium Chloride
Sulfuric (H_2SO_4)	Sulfate	Copper Sulfate
Nitric (HNO_3)	Nitrate	Potassium Nitrate

Space

Section 1	The Night sky
Galaxy	A galaxy is a collection of millions or billions stars, gas and dust; our galaxy is the Milky Way.
Stars	A **star** is a very large ball of bright glowing hot matter in space. That matter is called plasma. Stars are held together by gravity.
Planets	Planets are round and made up of rocks and gas large enough to hold itself together by gravity. They orbit a star.
Meteors	Small balls of dust or rock that burn up in the earth's atmosphere producing streaks of light. Meteorites are their remains when/if they reach earth.
Comets	Balls of ice and rock with a fuzzy haze.

Section 3	The Earth and Seasons
Axis	The earth spins on its axis, tilted at 23 degrees, it takes 24 hours to rotate fully (one day)
Day and night	The spin of the axis gives us day and night, day when the earth faces the sun, night when you face away.
Year	The earth orbits around the sun once every 365 days, a year.
Seasons	The tilt of the axis gives us seasons. Summer is when a hemisphere tilts towards the sun and winter when it tilts away. Its hotter in the summer as the rays are more concentrated on the earth compared to the winter



Section 2

The Solar System

There are eight planets in our solar system, which orbit the Sun in an **ellipse** shape.

The **asteroid belt** is between Mars and Jupiter. It contains thousands of pieces of rock.

Section 4	The Moon
Phases of the moon	The moon looks different each night as it is orbiting the earth. The moon only reflects the sun's light it doesn't produce its own light
Lunar eclipse	The light from the sun can be blocked when the earth comes between the sun and the moon.
Solar eclipse	When the moon comes between the sun and the earth, sunlight cannot reach parts of the earth's surface.

Spanish Y7- Mi Insti

¿Qué estudias?	What do you study?
Estudio	I study
Las ciencias	Science
El dibujo	Art
Le educación física	PE
El español	Spanish
El francés	French
La geografía	Geography
La historia	History
La informática	ICT
El inglés	English
Las matemáticas	Maths
La música	Music
La religión	RE
El teatro	Drama
La tecnología	Technology

¿Cuál es tu día favorito?	What is your favourite day?
Mi día favorito es…	M favourite day is…
Los lunes/martes	On Mondays/ Tuesdays
Estudio…	I study….
¿Por qué?	Why?
Porque…	Because
Por la mañana	In the morning
Por la tarde	In the afternoon
Estudiamos	We study
No estudio	I don't study

Verbos Importantes	Important Verbs
Tengo	I have
Estudio	I study
Estudiamos	We study
Es	He/she/it is
Son	They are
Hay	There is/are
No hay	There is/are not

Adjetivos	Adjectives
Aburrido	boring
Difícil	Difficult
Divertido/a	Fun
Fácil	Easy
Importante	Important
Interesante	Interesting
Práctico/a	Practical
útil	Useful
Feo/a	Ugly
Bonito/a	Pretty
Grande	Big
Pequeño	small

Opiniones	Opinions
Me encanta	I love
Me gusta mucho	I really like
Me gusta	I like
No me gusta	I don't like
No me gusta nada	I don't like it at all
Odio	I hate
Detesto	I detest
Prefiero	I prefer
Me chifla	I am crazy about

¿Qué hay en tu insti?		What is in your school?	
En mi insti hay…	In my schol there is	una clase de informática	An ICT classroom
Un campo de fútbol	A football pitch	Un salón de actos	A drama studio
Un comedor	A canteen	Una biblioteca	A library
Un gimnasio	A gym	Un laboratorio	A lab
Un patio	A playground	Una oficina	An office
Una piscina	A pool	El aseo	The toilet

Spanish - Mi Familia y Mis Amigos - Part 1

Spanish Y7- Mi familia y mis amigos (1)

¿Cuántas personas hay en tu familia?	How many people are there in your family?
En mi familia hay…	In my family there is…
Personas	People
Mis padres	My parents
Mi madre	My mum
Mi padre	My dad
Mi abuelo	My grandad
Mi abuela	My grandmother
Mi bisabuelo/a	My great grandmother/grandfather
Mi tío	My uncle
Mi tía	My aunt
Mis primos	My cousins
Mi madre se llama	My mum is called
Mi padre se llama	My dad is called
Mis hermanos se llaman	My siblings are called
Su hermano	His/her brother
Sus hermanos	His/her siblings

¿De qué color tienes los ojos?	What color are your eyes?
Tengo los ojos…	I have … eyes
Azules	Blue
Grises	Grey
Marrones	Brown
Verdes	Green
Llevo gafas	I wear glasses

Los números 20-100	Numbers 20-100
Veinte	20
Treinta	30
Cuarenta	40
Cincuenta	50
Sesenta	60
Setenta	70
Ochenta	80
Noventa	90
cien	100

¿Cómo tienes el pelo?	What's your hair like?
Tengo el pelo…	I have … hair
Castaño	Brown
Negro	Black
Rubio	Blonde
Azul	Blue
Liso	Straight
Rizado	Curly
Soy pelorrojo/a	I am a redhead
Soy calvo	I am bald

¿Cómo es?	What is he/she like?
Es…	He/she is
No es…	He/she is not
Alto/a	Tall
Bajo/a	Short
Delgado/a	Thin
Gordo/a	Fat
Guapo/a	Good looking
Inteligente	Intelligent
Joven	Young
Tiene pecas	He/she has freckles
Tiene barba	He has a beard

Palabras muy frecuentes		High frequency words	
Además	Also	Mi/mis	My
Bastante	Quite	Tu/tus	Your
Porque	Because	Su/sus	His/hers
Muy	Very	tiene…	He/she has
¿Quién…?	Who…?	Tengo…	I have
Un poco	A little	Es…	He/she is

Spanish Y7- Mi familia y mis amigos (2)

¿Cómo es tu casa o tu piso?	What is your house or flat like?
Vivo en…	I live in…
Una casa	A house
Un piso	A flat
Antiguo/a	Old
Moderno/a	Modern
Bonito/a	Pretty
Feo/a	Ugly
Cómodo/a	Comfortable
Incómodo/a	Uncomfortable
Grande	Big
Pequeño	Small
Guay	Cool
Interesante	Interesting
Aburrido/a	Boring
Divertido/a	Fun

¿Dónde está?	Where is it?	¿Dónde está?	Where is it?
Está en…	It is in	Una granja	A farm
La costa	The coast	El norte	The north
El campo	The countryside	El sur	The south
Una ciudad	A city	El este	The east
Un pueblo	A town	El oeste	The west
La montaña	The mountains	El desierto	The desert
El centro	The centre	Las afueras	The outskirts

Estrategia 4

Mnemonics

One way of remembering new words is to invent a mnemonic: a rhyme or saying that sticks easily in the mind. Here's an example from the word list above, but it's best to make up your own – you'll find them easier to remember/harder to forget.

Ben
Offers
Nice
Invitations
To
Others

You can't learn every word like this – it would take ages! But it's a great way of learning those words that just don't seem to stick.

Harrow Way
Community School
Learning for life, success for all

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