# Knowledge Organisers
# Year 7
# Autumn 2020

# Knowledge Organisers

## Autumn Term Knowledge Organisers still need to be brought to school every day, alongside this one.

Some subjects like Design Technology organise the curriculum on a carousel, as such all the organisers for that subject are in the Autumn Term booklet.

**Contents**

An introduction to Knowledge Organisers

Art

Computing

Drama

Design Technology (DT)

English

Geography

History

Mathematics

MFL

Music

PSHE

Religion, Ethics and Philosophy (REP)

Science

# An Introduction to Knowledge Organisers

## What is a Knowledge Organiser?

A knowledge organiser is a document, usually one side of A4, occasionally two, that contains key facts and information that children need to have a basic knowledge and understanding of a topic, or in some cases a series of topics.

Students are expected to bring their Knowledge Organiser Booklet to school every day. Students will be issued with a new booklet each term. However, it is import they keep the booklets to help with revision for end of year exams.

## What are the benefits of knowledge organisers?

The main benefit of knowledge organisers is that they give students and parents the 'bigger picture' of a topic or subject area. Some topics can be complicated, so having the essential knowledge, clear diagrams, explanations and key terms on one document can be really helpful.

Research shows that our brains remember things more efficiently when we know the 'bigger picture' and can see the way that nuggets of knowledge within that subject area link together. Making links, essentially, helps information move into our long-term memory.

## How can the students use them?

As mentioned earlier, students are expected to bring their Knowledge Organiser Booklet to school everyday. In lessons they can be used in a number of ways, for example, to look up the meaning of key words, spell words correctly and do some additional work if they have finished classwork.

At home knowledge organisers can be used to support homework, independent work and revise for tests and exams. Two quick and easy ways to do this are:

1. Look, cover write, check – look at part of the knowledge organiser, cover it, write as much as you can remember and then check it
2. Word up – Pick out any words you don't understand. Use a dictionary or thesaurus to find the meaning. If they don't help as your teacher.

The more often you do this the better. YouTube has some clips on them; search 'Mr Garner look, cover, write, and check 'and 'Mr Garner word up'

## How can parents use them?

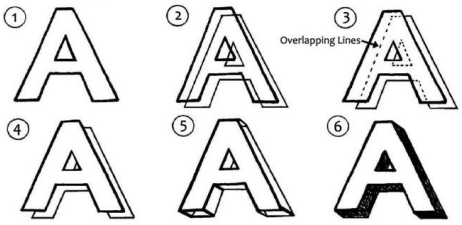
- Read through the organiser with your son/daughter – if you don't understand the content then ask them to explain it to you – 'teaching' you helps them to reinforce their learning.
- Test them regularly on the spellings of key words until they are perfect. Get them to make a glossary (list) of key words with definitions or a list of formulae.
- Read sections out to them, missing out key words or phrases that they have to fill in. Miss out more and more until they are word perfect.

## How the booklet is organised

The knowledge organisers are in alphabetical order by subject.

# YEAR 7 ART TEXT AS ART

# Knowledge Organiser - Term 1 & 2




## KEY WORDS

- Proportion
- Shape
- Feint
- Guide lines
- Serif
- Sans-serif
- Light
- Shade
- Tone
- Shape
- Outline
- 3D
- Font
- Style

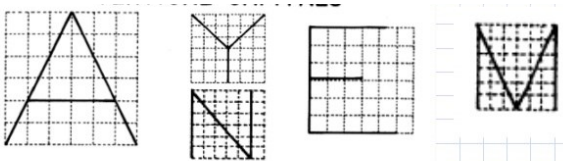
## SKILLS

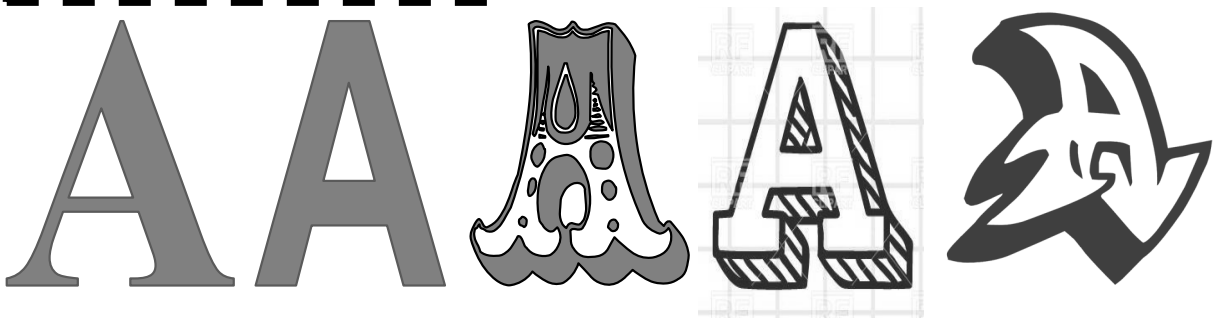
Planning/guidelines/
Proportion/scale
Form/use of lettering
Painting techniques
Observational drawing skills
Measurements
Planning and positioning

Plan lettering using guidelines, this helps the letter form and shape.

Use feint pencil lines to plan work, so it can easily be rubbed out

Font styles can be developed from a basic lettering shape by adding additional shape and decoration





**SERIF**— is an additional to the form of the letter at the end of the letter form

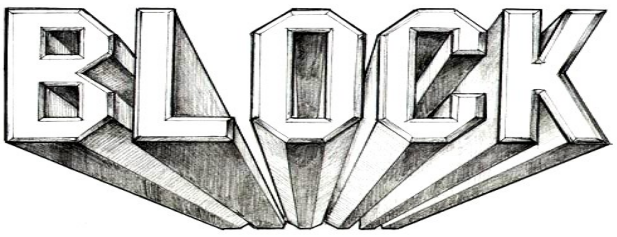
**SANS- SERIF** font—has no flourishes, plain letter forms, clean in style and line

**DECORATIVE** font—has a lot of embellishment and detail qualities

**HAND DRAWN** font—shows the artist input into it, with subtle imperfect qualities

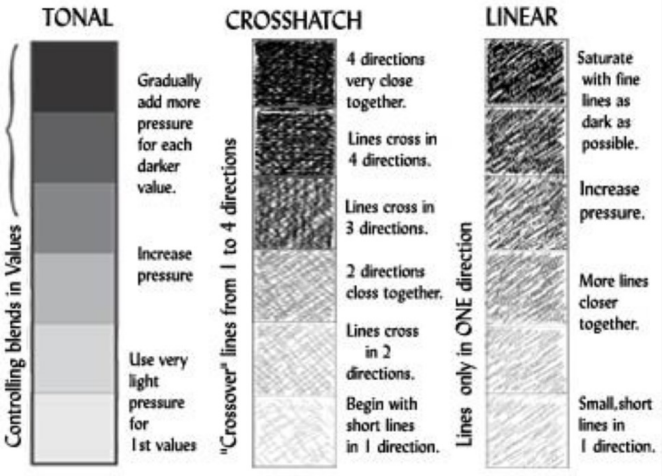
**GRAFFITI** is a hand drawn, exaggerated letter form, often made using spay paint

**ILLUMINATED**— is a font style where the initial letter form is illustrated and highly decorative




## Artists known for using text in their work;

- Ed Ruscha
- Robert Indiana
- Barbara Kruger
- Ben Eine
- Bruce Nauman
- Jenny Holzer




Make sure you have a

**PENCIL**

**RUBBER**

**SHARPENER**

Build on your drawing skills & techniques with a

**2B PENCIL**

## Cyber Security Measures

**Anti-malware software** checks for malware on your device.

**Firewalls** protect against unwanted data entering or leaving a computer on a network.

**Passwords** should be at least 8 characters in length. Don't use real words or your username.

They should include:

- Upper and lower case letters
- Numbers
- Other characters

**Report spam** messages. Don't open messages from untrusted sources.

**Update apps and operating systems** when prompted.

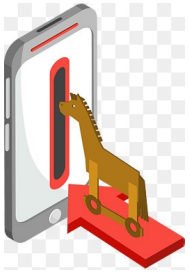
## Social engineering

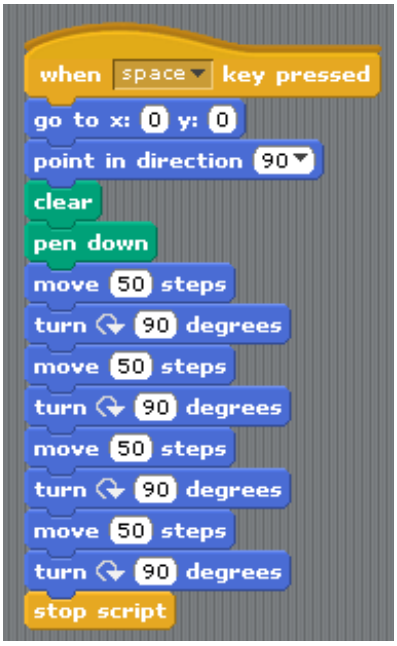
*"The manipulation of people into giving up personal data, which can be used for malicious purposes."*

**Phishing** takes the form of electronic messages that look like they come from a genuine company, asking users to confirm security details. Links to the user to hoax websites where the details are gathered.

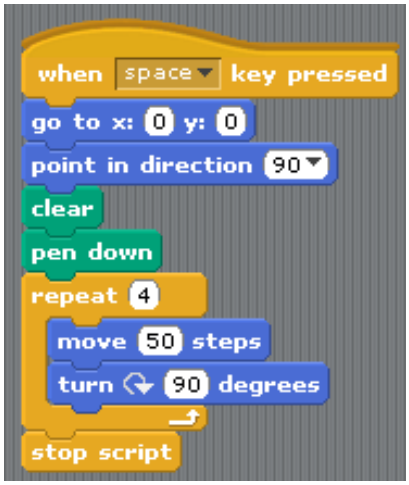
**Blagging** is a con where a criminal uses an invented scenario to extort money. Messages may come from a hacked account.

**Shouldering** is hackers observing users entering their login details, perhaps over the user's shoulder. Distraction techniques are used to mask this activity.

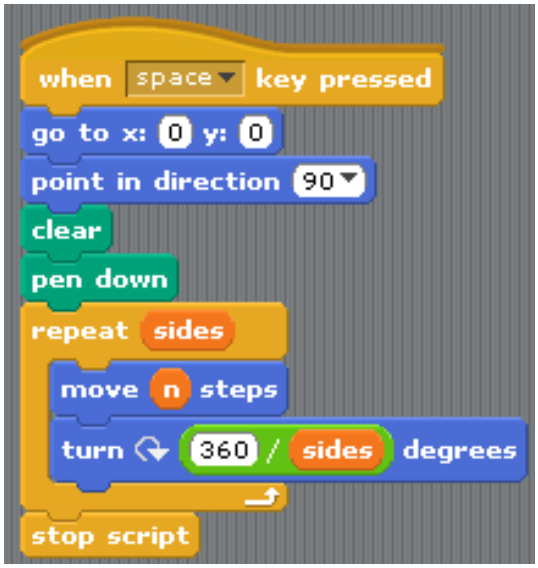
| | | |
|---|---|---|
| **Malware** | *A term to describe **mal**icious soft**ware**. This is computer programs that have a negative impact on computer users or their devices.* | |
| **Virus** | Usually come embedded in other documents and destroy data on your computer. |  |
| **Worm** | Needs no human interaction. They travel around networks, looking for unprotected computers. |  |
| **Trojan horse** | Malware that gives hackers access to a computer. |  |




This program draws a square. The **sequence** of instructions is important. If they are in a different order, the outcome of the program will be different.




This program does exactly the same thing. However, it uses a loop to repeat instructions, making it shorter and therefore easier to edit if necessary. This is known as **iteration**.

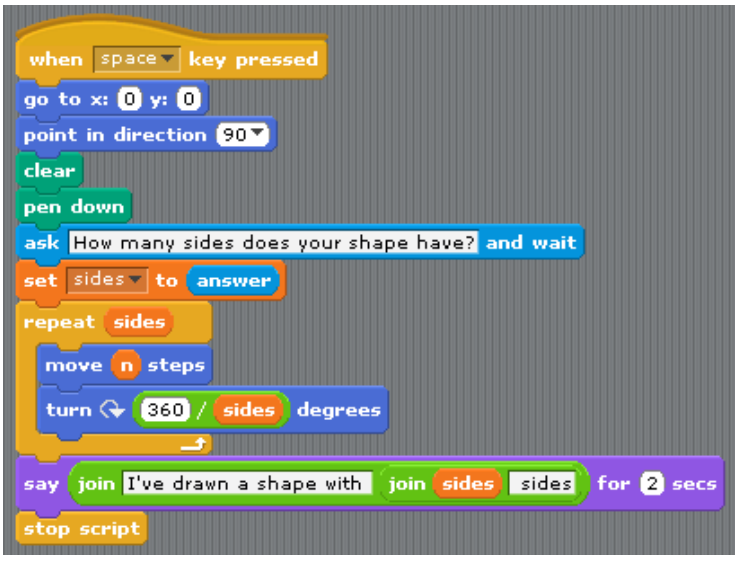



The program has been improved further here. It uses two **variables**, *sides* and *n*.

This makes the program more flexible, by being able to draw shapes of different number of sides.

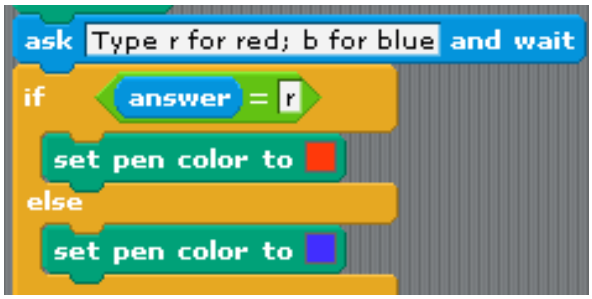
The number of degrees to rotate has been calculated by an **arithmetic operation**: 360 ÷ sides. We use '/' as the division operator (instead of ÷) in computing.

# Computing: Programming with Scratch




This time the program asks the user how many sides the shape should be. This is known as **user input** and the answer is stored in the variable *sides*.

Once the shape has been drawn, the program **outputs** text to the screen. It joins some text with the value of the variable *sides*. This is known as **concatenation**.




Finally, the user is given a choice of colours. This part of the program uses a **Boolean expression** to compare the user input with 'r'.

If this is *true* (the users types 'r'), the pen colour is red.

If this is *false* (the user doesn't type 'r'), the pen will be blue.

*If... else* statements are known as **selection**.

# Drama Knowledge Organiser: Year 7

## DIVERSITY

- Understanding our diverse nation in terms of gender, ethnicity, faith, politics, abilities and disabilities.
- Using key drama skills such as devising (creating your own piece of theatre) tableaux (frozen image) thought tracking (telling the audience how your character feels).
- Creating clear characters which tells the audience how they are feeling using body language and voice.
- Having a 'moral' to your performances that leaves the audience learning a lesson.

## PANTOMIME

- Inspired by Commedia Del Arte and clowning.
- Originated in Italy.
- Commedia means "the comedy"
- Very popular in Shakespearian time.
- Actors using no script – Improvisation – making up performance on the spot.
- Started by being performed on the street.
- Comedic in style – characters are very physical and over the top.
- Main Characters – Prince, Princess, Dame, Evil
- Choral elements are vital to this performance style – talking in unison.
- Singing, dancing and acting are involved.

## CHARLIE AND THE CHOCOLATE FACTORY

- Students to perform in 'stereotype' linking to the main characters in the book – Charlie Bucket, Mike TV, Augustus Gloop, Violet Beauregarde and Veruca Salt.
- Using strong physicalisation to represent characters.
- Using and understanding scripts to perform in an effective way to fully embody the characters.

## SPY SCHOOL

- Introduction to practitioner Konstantin Stanislavski and his 'System.'
- Stanislavski – Father of Modern Theatre born in 1863 from Russia – created Method Acting.
- Teacher in Role – teacher performing in character to create sense of realism.
- Naturalism – performance that is like real life.
- Physical Apparatus – actors voice and body.
- Hot Seating – questioning actors in role.
- Magic If – how the actor would feel IF they were in the characters situation.
- Emotion Memory – Using a past memory to influence your acting.

## HARRY POTTER

- Students to use physical theatre (performing using your body with gesture and movement).
- Looking at key characters from the book – Harry Potter, Ron Weasley, Hermione Granger, The Dursleys, Snape.
- Understanding different types of genre within theatre.
- Looking at stereotypical characters.
- Marking the moment – showing a significant moment within performance.
- Using exaggerated movement and gestures to show characters personalities and feelings.

## KEY WORDS FOR YEAR 7 DRAMA

Vocal – pitch, pace, pause, volume, tone, accent.
Body – gait, gesture, facial expression, posture, mannerisms.
Performance - Tableaux, Non-Naturalism, Naturalism, Thought-Tracking, Emotion Memory, Magic If, Physical Theatre.

# Design Technology Subjects

# Year 7 Cooking & Nutrition Knowledge Organiser – Developing Preparation Skills

## Practical Skills

| Skill Group | Techniques |
|---|---|
| Knife skills | Fruit and Vegetables—bridge hold, claw grip, peel, slice, dice and cut into even pieces. |
| Weigh and measure | Be able to demonstrate accurate measurement of liquids and solids. |
| Use of equipment | Use a blender, grater, vegetable peeler and potato masher. |
| Using the hob | • boiling and simmering<br>• stir frying |
| Using the oven | • baking |
| Make sauces | Make a reduction sauce (pasta sauce) |
| Test for readiness | Use a knife/skewer, finger or poke test, bite or visual colour check to establish whether a recipe or ingredient is ready. |
| Judge and manipulate sensory properties | Demonstrate:<br>• how to taste and season during cooking<br>• presentation and food styling—use garnishes & decorative techniques. |

## Nutrition – The Eatwell Guide


## Key Messages:

- Eat at least 5 portions of fruit and vegetables per day.
- Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates.
- Have some dairy or dairy alternatives.
- Eat some beans, eggs, fish, meat and other proteins.
- Choose unsaturated oils and spreads and eat in small amounts.
- Drink 6-8 cups/glasses of fluid per day.

## Equipment


Masher


Kitchen Scales


Measuring Jug

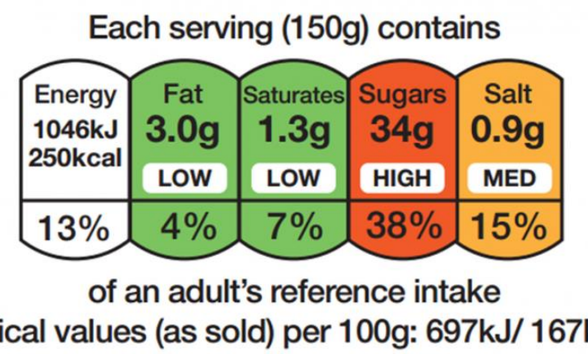

Fish Slice


Vegetable knife

| Hygiene & Safety Rules |
|---|
| Tie up long hair |
| Wear an apron |
| Tuck tie in |
| Wash hands |
| No running |
| Use oven gloves when necessary |
| Clean practical equipment thoroughly |

| Key abbreviations: Weights and Measurements | | |
|---|---|---|
| L | Litres | |
| g | Grams | |
| ml | millilitres | 1000ml =1 litre |
| Kg | kilograms | 1000g |
| Tbsp | tablespoons | 15ml |
| Tsp | teaspoon | 5ml |
| 1pt | 1 pint | 568ml |

## Food Labelling

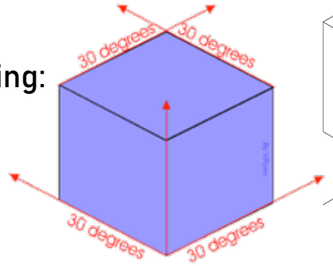


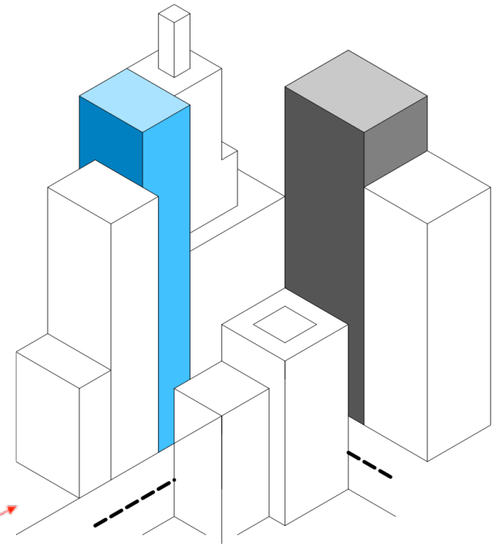
# Year 7 Design & Technology (Graphic Products) Knowledge Organiser

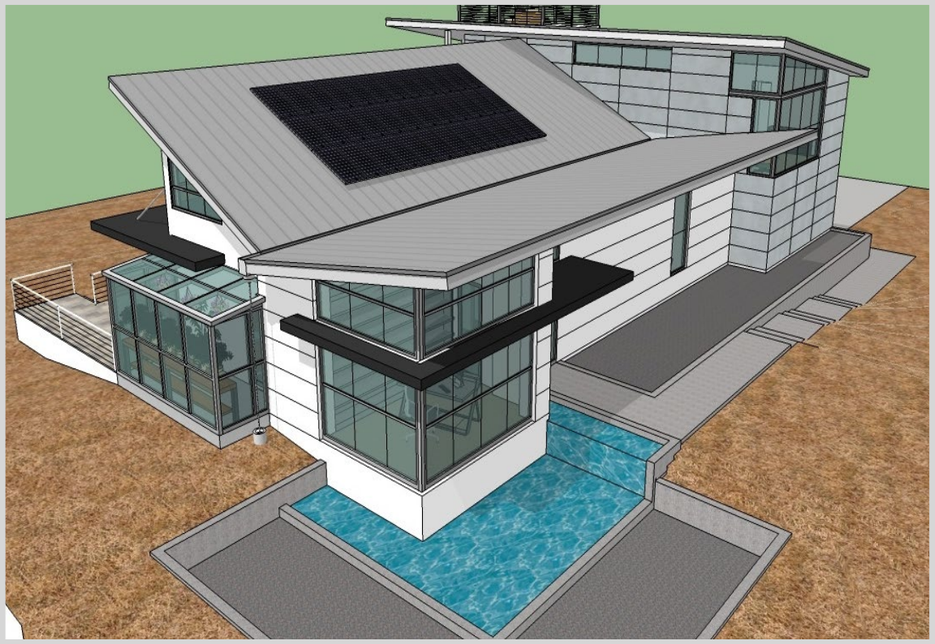
## Sustainable House Design

### Key Skills

- Responding to a Design Brief
- Analysing & researching information
- Identifying a target audience
- Developing CAD drawing skills using:
  - Techsoft 2D Design
  - Google SketchUp
  - Serif Draw Plus
- Isometric drawing to create shapes & designs in 3D
- Rendering shapes with colour, texture & materials
- CAD modelling & presentation skills
- Evaluating the design process





| Sustainable design features & considerations | |
|---|---|
| Solar panels | Aesthetics of the property |
| Ground source heat pumps | Efficient use of space |
| Wind generators | Use of materials |
| Insulation | Use of light |
| Energy efficiency | Consideration of how the design works for the audience? |
| Type of roofing | Location |

| Key vocabulary | |
|---|---|
| Sustainability | Not being harmful to the environment or depleting natural resources. |
| Materials | What something is made from. |
| Energy | The capacity to do work e.g. physical or chemical resources to provide light or heat. |
| Environment | The surroundings in which a person or people live. |
| Function | What a product does, how it works and what it will be used for? |
| Aesthetics | How a product or design looks . |
| Target Audience | The person or people most likely to be interested in your design or product. |
| Cost | The price paid to acquire, produce, accomplish a task. |
| CAD | Computer aided design |
| Isometric Drawing | Isometric drawing is way of presenting designs in 3D a 30 degree angle is applied to its sides. |
| Rendering | The process of adding shading, colour, texture or material to a drawing. |
| Modelling | To present ideas to the user (target audience) or client. |
| Design Brief | An written outline which explains the aims and objectives and milestones of a design project. |

# Year 7 Textiles Knowledge Organiser

## Mobile Phone/ Tablet Stand

### Key Skills

- Responding to a Design Brief
- Analysing existing products
- Identifying a target audience
- Designing & annotating to include a range of decorative and construction techniques
- Demonstrating ability to complete a range of decorative by techniques by hand:
  - Embroidery stitches (running & blanket)
  - Appliqué
  - Adding components e.g. sequins & buttons
- Using a sewing machine to complete a range of construction techniques:
  - Seams
  - Hems


| Product features | |
|---|---|
| Creative design that is personalised | A theme that is identifiable and original |
| Hand embroidery | Consideration of a specified target market |
| Hand appliqué | A variety of textured fabrics |
| Components used as decoration | Machine sewing |

| Health & safety |
|---|
| Follow teacher instructions |
| Move slowly around the room do not run |
| Tie long hair back |
| Hold scissors or shears correctly when walking around the room. |
| Only one person operating a sewing machine or overlocker at one time |
| Never use a sewing machine or overlocker unless supervised by a teacher/ technician |
| Turn off all machines when not in use. |
| Report any injuries or breakages to the teacher immediately |

| Key vocabulary | |
|---|---|
| Decorative | Being aesthetically pleasing to the eye. |
| Materials | What something is made from? |
| Components | The parts/materials/threads needed to make a product. |
| Function | What a product does, how it works and what it will be used for? |
| Aesthetics | How a product or design looks . |
| Target Audience | The person or people most likely to be interested in your design or product. |
| Embroidery | Even stitch widths and lengths completed by hand sewn stitches. |
| Overlocking | A machine that prevents the raw edges of fabric fraying. |
| Appliqué | A decorative technique whereby one material is sewn on top of another by hand. |
| Design Brief | An written outline which explains the aims and objectives and milestones of a design project. |

# ENGLISH KNOWLEDGE ORGANISER: LANGUAGE FOR ANALYSIS: CLASS READER

YEAR: 7 UNIT: 2

| KEY TERMINOLOGY FOR ANALYSING PROSE | |
|---|---|
| prose | Continuous writing with no metre |
| mood | The feelings/emotions of a novel |
| tone | The attitudes of writing |
| context | The influence of the time a novel is read or written |
| dialogue | Conversation between at least two characters |
| characterisation | How a character is constructed |
| setting | Where the action takes place |
| first person narration | Perspective using 'I'; allows for emotional insight |
| third person narration | Perspective using 'He'/'She'/'They |
| *omniscient narration | Ability of a narrator to understand the emotions of all characters |
| *withholding | What the writer isn't allowing us to know |
| *foreshadowing | Events that suggest future ones |

| ADVERBS AND VERBS FOR ANALYSING EFFECTS | |
|---|---|
| deliberately | implies |
| intentionally | infers |
| purposefully | suggests |
| arguably | creates |
| possibly ADVERB | chooses/uses |
| cleverly | highlights |
| effectively | emphasises |
| powerfully + | evokes |
| *emphatically | conveys |
| *dramatically | develops |
| *vividly | describes |
| *passionately VERB | intensifies |
| *emotively | establishes |
| *subtly | builds-up |
| *skilfully | illustrates |
| *sensitively | explores |

| LANGUAGE TECHNIQUES YOU WILL ENCOUNTER | |
|---|---|
| lexis | Impressive word for 'word'! |
| simile | Phrase with 'as' or 'like' to suggest similarity |
| metaphor | Suggesting something is something else |
| figurative language | Any non-literal language that is used for effect |
| alliteration | Repetition of consonant sounds |
| onomatopoeia | Words that are spoken as they sound |
| pathetic fallacy | Where the weather or setting reflects a mood |
| personification | Given an inanimate object human qualities like movement or emotion |

| CONNECTIVES TO ADD AND DEVELOP SPEEDY PARAGRAPHS | |
|---|---|
| Furthermore,... | However,... |
| Moreover,... | Yet,... |
| Meanwhile,... | Conversely,... |
| In addition,... | On the other hand,... |

## COMMON THEMES IN CHILDREN'S FICTION

| | | | | |
|---|---|---|---|---|
| maturity | discrimination | parent-child relationships | romance | personal challenges |

# ENGLISH KNOWLEDGE ORGANISER: ENGLISH HEROES

YEAR: 7 UNIT: 1

## LANGUAGE TERMINOLOGY FROM THIS UNIT

| | |
|---|---|
| simile | Phrase with 'as' or 'like' to suggest similarity |
| metaphor | Suggesting something is something else |
| personification | Given an inanimate object human qualities like movement or emotion |
| alliteration | Repetition of consonant sounds |
| pathetic fallacy | Where the weather or setting reflects a mood |

## READING TERMINOLOGY AND SKILLS

| | |
|---|---|
| explicit information | Information that is obvious or stated |
| implicit information | Knowledge that can be implied from explicit information |
| quotation | A direct use of language from a text. Use "__" |
| *embedding quotations | Blending quotations into your analytical sentence structure |
| *judicious quotations | Keeping quotations short and focused on the most significant words |
| *zooming-in (analysis) | Analysing the effects of specific language choices |

## SENTENCE FORMS

| | |
|---|---|
| simple | A main or independent clause |
| compound | Two main clauses linked with a conjunction |
| complex | A sentence made of a main and a subordinate clause |
| declarative | A statement – most sentence types |
| imperative | A command beginning with a verb |
| interrogative | A question – direct or rhetorical. Use ? |
| exclamation | Emotion or humour. Use ! |

## SENTENCE STARTERS – REMEMBER COMMAS!

| | |
|---|---|
| connective | Begin with a linking word to add, develop, change or emphasise ideas |
| fronted adverbial | Begin a sentence with an – ly word or other adverb (word that describes a verb) |
| 2 x adjective starter | Begin with two adjectives; use a conjunction between them like 'and' |
| preposition starter | State where the subject is to begin the sentence |
| *litotes | Begin with the negative: use 'Nothing…' or 'Never…' for example |
| *simile starter | Begin with 'Like….' to begin with a simile |

## ADVANCED PUNCTUATION

| | |
|---|---|
| *semi-colon | **Used to replace 'and' in a compound sentence:** *Like an angel, the sun shone; there wasn't a cloud to be seen.* |
| *colon | **Means 'Here's my evidence' and follows a simple statement:** *Majestically, the princess created a stir: she was beautiful!* |
| *dash | **Single: Used to emphasise a description at the end of a sentence:** *Happily, the sun shone – its rays reached across the whole land.* **Double: Used to emphasise a description with further emphasis:** *The sun's rays – its burning, radiant rays – shone across the kingdom.* |

## FAMOUS WRITERS

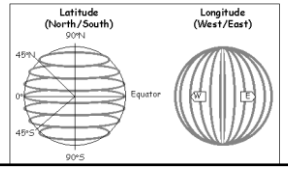
| | |
|---|---|
| Charles Dickens (1812-1870) | • Famous Victorian novelist who also championed the causes of the poor<br>• Famous for the novels *A Christmas Carol, Oliver Twist* and *Great Expectations* amongst many others |
| William Wordsworth (1770-1850) | • Famous Romantic poet<br>• Lived a lot of his life in the Lake District – you can visit his cottage<br>• Was Poet Laureate<br>• Famous for the poem *I Wandered Lonely as a Cloud* |
| Charlotte Brontë (1816-1855) | • Famous gothic romance novelist<br>• Lived in Haworth, Yorkshire<br>• Wrote under a male pen name, Currer Bell<br>• Famous for the novel *Jane Eyre* |

# Year 7 Geography
# Unit 1: A Sense of Place

**Lesson 1-3**
A **continent** is a continuous area of land. The **7 continents** of the world are North America, South America, Africa, Asia, Antarctica, Europe and Oceania (Australasia). An ocean is a very large expanse of water.

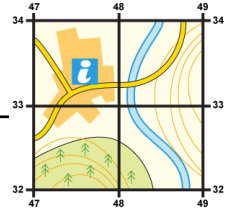
There are 5 main **oceans** around the world including the Indian, Pacific, Atlantic, Southern and the Arctic.


**Lesson 4**
**Latitude** varies from 0-90° north and south at the poles. They are **horizontal**.
**Longitude** varies from 0-180° East and West from Grenwich. They are **vertical**.

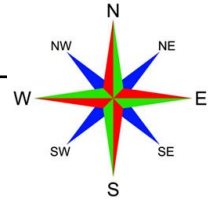



**Lesson 5**
**Europe** is a **continent** located in the **Northern Hemisphere** and mostly in the **Eastern Hemisphere**.

It is bordered by the **Arctic Ocean** to the north, the **Atlantic Ocean** to the west and the **Mediterranean Sea** to the south.




**Lesson 8**
The **main mountain ranges** in Great Britain are the Cambrian mountains, the Pennines and the Scottish Highlands (Grampian, Southern Uplands and North West Highlands).
The main **cities** in Great Britain are London, Birmingham, Manchester, Glasgow, Leeds, Liverpool and Newcastle (in population size order).




**Lesson 9**
Greater Manchester is a county.
It is made up of 10 boroughs.
You live in the borough of Trafford.


**Lesson 10-11**

**To write a six figure grid reference you need to:**
1. **Read along the corridor** until you get to the easting crossing through the **bottom-left-hand corner** of the square you want. **Write this number down.**
2. **Estimate** or measure how many **tenths** across your symbol lies. **Write this number after the first two digits.**
3. Read up the stairs until you get to the **northing** crossing through the **bottom-left-hand corner** of the square you want. **Write this number down.**
4. **Estimate** how many **tenths** your symbol is from the northing. **Write this number down.**

**Lesson 12 - 14**
**Spot heights** - Numbers that show the exact height of a place
**Layer colouring** - Using bands of different colours to show areas of different heights
**Contours** - Lines on a map which join up places which have the same height

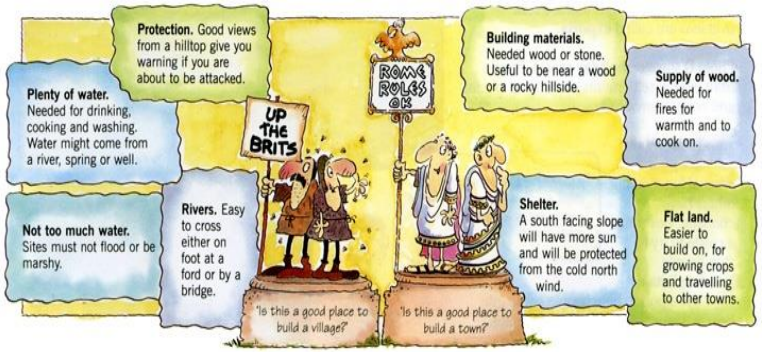
**Lesson 15 -16**
To measure distance you can use either string or a ruler depending on whether the route is straight or not. Compare the number of centimetres travelled to the scale.


**Lesson 17-18**
**GIS** - geographic information system. This is a system on a computer which allows you to present data in different ways.
Digimap for schools log in:
Username: WA157RH
Password: loaths36
http://digimapforschools.edina.ac.uk/


| | Definition |
|---|---|
| **Human geography** | The study of the natural processes of the Earth, such as climate and plate tectonics. |
| **Physical geography** | The study of the impact and behaviour of people and how they relate to the physical world. |
| **Environmental geography** | The study of the interaction between humans and the natural environment. |
| **Northing** | A figure or line representing northward distance on a map. These are the horizontal lines on an OS map. |
| **Easting** | **A** figure or line representing eastward distance on a map. Theses are the vertical lines on an OS map. |

# Year 7 Geography
# Unit 2: Settlement

**Early settlers often looked for certain features in an area to make life easier:**



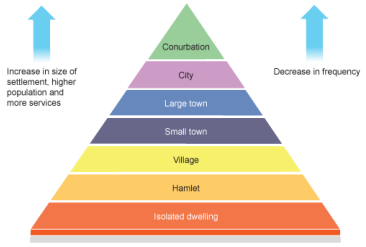

**Settlement size:**

**Hamlet** – a small group of homes

**Village** – larger than a hamlet. It contains more services, e.g. post office

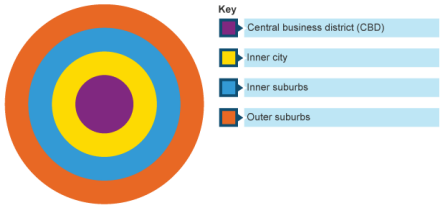
**Town** – this may contain tens of thousands of people. Usually has a range of functions, such as shopping centres and secondary schools

**Cities** – these have the widest variety of functions. In the past, cities were identified as having cathedrals.




## Land use zones

Towns and cities are often complex but it may be possible to see how some land uses group together in **zones**. The **Burgess model** shows a simple land use pattern that can be identified in some towns and cities, particularly in countries like the UK.




CBD – site of shops, entertainment and offices

Inner city (old industry) – this is where old factories built during the industrial revolution are being developed into new offices or apartment blocks

Suburbs – Over time cities spread out and this is where the suburbs were created. Here houses are often semi-detached.

Outer suburbs/rural-urban fringe – this zone is on the edge of the city and contains large, detached homes.


## Urban change and regeneration

As towns and cities have grown, some areas have become run down. This is particularly true of some old inner-city areas. Governments have tried to improve conditions in these areas.

**Problems of old inner-city areas and the city centre include:**

overcrowding
poor-quality housing
traffic congestion

## Redesigning urban areas

Urban areas need to be:

- Clean
- Well lit
- Open with some greenery
- Close to shops and services
- Safe

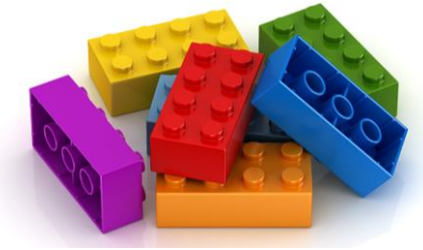
It is also important for urban areas to have furniture and other features which make it attractive, e.g. fountains.

KEYWORDS


| | Definition |
|---|---|
| Site | This is the place where the settlement is located, eg on a hill or in a sheltered valley. |
| Situation | this describes where the settlement is in relation to other settlements and the features of the surrounding area, eg is the settlement surrounded by forest or is it next to a large city? |
| Urban sprawl | The unplanned growth of urban areas into the surrounding countryside. |
| Urban greening | The process of increasing and preserving open space such as public parks and gardens in urban areas. |
| Regeneration | The revival of old parts of the built-up area. |

# Wellington History
# Year 7 HT 1 Knowledge Organiser

What can we learn about History from the Ancient World?
Did Roman rule improve life in Britain?
Who are the British?



- ✓ **What and why?** You will learn how to become an excellent Historians through studying the Ancient World and Roman Empire.
- ○ **Stop, think and link:** Back to Primary School!
- ❖ **Change and continuity assessment – Did Roman rule change England for the better?**

❖ **Want to explore further?**

Book: Truth or Busted: Fact or Fiction Behind the Romans
Book: Horrible Histories – The Rotten Romans
Website: https://www.bbc.com/education/topics/zwmpfg8


## Key Questions

- What is History?
- What is chronology?
- How do you use source to learn about the past?
- Why did the Romans want an Empire and how did it grow?
- What are causes and consequences?
- Why was the Roman Army so important?
- How do you write a great History essay?
- What was life like for ordinary Romans?
- How was the Republic governed?
- How did the Romans change Britain?
- Why did the Roman Empire collapse?
- How has British History been shaped by migration?

## Key events and Key People

753BC Rome is founded by Romulus
55BC Julius Caesar attempts an invasion of Britain
44BC Julius Caesar is murdered
27BC Augustus becomes the first Roman Emperor
43AD Romans invade Britain
60AD Boudicca leads rebellion against the Romans
80AD Coliseum is built in Rome
122AD Hadrian's Wall is built
312AD Christianity becomes the official religion of the Roman Empire
410AD The last Romans leave Britain

## Keywords

**Chronology**
The study or order of time
**Century**
100 years
**Source**
Information left over from the past
**Interpretation**
How Historians explain the past
**Purpose**
The reason a source or interpretation is created
**Cause**
Reasons for something happening
**Consequence**
The results of an event happening
**Empire**
When a country control land outside of it's own borders
**Citizen**
Free adult male who could vote
**Invasion**
Sending an army to conquer another land
**Republic**
The early political system of the Rome where there was no King or Emperor
**Dictator**
A single ruler who has complete power
**Plebeian**
Poor ordinary Roman
**Patrician**
Rich Roman that sat in the Senate
**Slave**
A person with no rights or freedom
**Legacy**
What you leave behind for future generations

# Wellington History

# Year 7 HT 2 Knowledge Organiser

**Farmers, warriors and the Church? Is this a fair view of Anglo-Saxon England?**
**Did the Normans bring a truckload of trouble to England?**
**What was important to Medieval people?**

- ✓ **What and why?** You will learn how to become an excellent Historians through studying the Ancient World and Roman Empire.
- ○ **Stop, think and link:** Back to Primary School and your previous study of the Roman empire
- ❖ **Change and continuity assessment – Did the Normans bring a truckload of trouble to England?**

- **Want to explore further?**

Book: G.A Henty, Wulf the Saxon: A Story of the Norman Conquest
Book: Jim Eldridge, 1066 (I Was There)
Website: https://www.bbc.co.uk/bitesize/guides/zsjnb9q/revision/1

## Key Questions

- Who were the Anglo-Saxons?
- How sis the Anglo-Saxons come to inhabit England?
- What was life like in Anglo-Saxon England?
- Why was there a struggle for power in 1066?
- What threats did Harold Godwinson face?
- Why did the Normans win the Battle of Hastings and the Anglo-Saxons lose?
- What problems did William the Conqueror face in establishing Norman control of England?
- How did William establish Feudal control over England?
- How did Norman England differ from Anglo-Saxon England?

## Key events and Key People

350AD Anglo-Saxons raid English shores and are beaten back by the Romans
410AD The last Romans leave Britain
556AD Seven Kingdoms are created across Britain
865AD Great Viking Army from Denmark invades England
980AD New Vikings raids on England
1014AD King Canute of Denmark captures the English crown
1042AD Edward the Confessor becomes King
1066AD Edward the Confessor dies causing a power struggle in England. Harold Godwinson becomes King.
1066AD The Normans invade England

## Keywords

**Battle:**
**A fight between armed forces**

**Anglo–Saxon:**
**Germanic inhabitants of England from the 5th century to the Norman conquest**

**Cavalry:**
**Soldiers who fought on horseback**

**Feudal system:**
**The social system used in medieval Europe**

**Domesday book:**
**A survey of the land of England to determine peoples ownership and value of property**

**Christianity:**
**Following the teachings of Jesus Christ**

**Tax:**
**Money paid to the government or monarch**

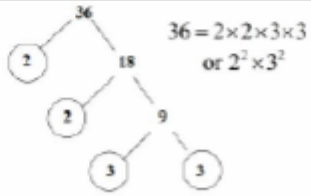
**Monarch:**
**King or queen of the country**

**Harry:**
**To carry out attacks on an enemy or their territory**

**Witan:**
**The council that advised the king on matters of government**


# Mathematics

# Topic 1: The Number System

| Topic/Skill | Definition/Tips | Example | Non-example |
|---|---|---|---|
| 1. Factors | An integer is a whole number. | 2, -6 and 387 are integers. | $\frac{1}{3}$, -0.5 and 5.879 are not integers. |
| | A factor is a positive integer which divides perfectly into another number – leaves no remainder.<br><br>It is often easiest to try finding factors in pairs. | The factors of 28 are:<br><br>1, 2, 4, 7, 14, 28 | 12, -2, and $\frac{1}{5}$ are not factors of 28. |
| 2. Prime Numbers | A prime number is defined as having two distinct factors, *1* and itself. | 2, 5, 17 and 73 are examples of prime numbers. | 4, 24, 27, 0 and 1 are not prime numbers. |
| 3. Prime Factors | A prime factor is a factor which is prime.<br><br>Use a prime factor tree. | 2 and 7 are prime factors of 56. | 8 and 3 are not prime factors of 56. |
| | The product of prime factors shows which prime numbers multiply together to make the original number.<br><br>Also known as 'prime factorisation'. |  $36 = 2\times2\times3\times3$ or $2^2\times3^2$ | $48 = 2^3 \times 6$ is not a complete product of prime factors. |

| | | | |
|---|---|---|---|
| 4. Highest Common Factor | When two numbers share a factor, we call this a common factor. | 4 is a common factor of 16 and 24. | 3 is not a common factor of 16 and 24. |
| | The largest of these common factors is called the Highest Common Factor (HCF). | 8 is the Highest Common Factor (HCF) of 16 and 24. | 4 is not the Highest Common Factor (HCF) of 16 and 24. |
| 5. Lowest Common Multiple | A multiple of a number is a number in that number's times table. | The first five multiples of 7 are:<br><br>7, 14, 21, 28, 35 | 1 and 41 are not multiples of 7. |
| | The Lowest Common Multiple (LCM) of two or more numbers is the smallest number that is a multiple of both numbers. | 12 is the Lowest Common Multiple of 4 and 6. | 24 is not the Lowest Common Multiple of 4 and 6. |

Topic 2: Equivalence

| Topic/Skill | Definition/Tips | Example | Non-example |
|---|---|---|---|
| 1. Equivalent Fractions | A fraction is an equal part of a whole. | The following diagram represents one third:  | The following diagram does not represent one third:  |
| | Equivalent fractions are two fractions with the same value but with different numerators and denominators.<br><br>You find equivalent fractions by multiplying/dividing the numerator and denominator by the same number. | $\frac{4}{12}=\frac{1}{3}$<br><br>$\frac{1}{5}=\frac{2}{10}$<br><br>$\frac{9}{15}=\frac{3}{5}$<br><br>$\frac{30}{12}=\frac{10\times 3}{3\times 4}=\frac{10}{4}=\frac{2\times 5}{2\times 2}=\frac{5}{2}$ | $\frac{5}{12}\neq\frac{7}{14}$<br><br>$\frac{4}{7}\neq\frac{8}{21}$ |
| | A fraction is in its simplest form if there is no equivalent fraction with a lower numerator and denominator. | $\frac{1}{7},\frac{5}{9},\frac{24}{37}$ are all in their simplest form. | $\frac{5}{10},\frac{12}{16},\frac{3}{51}$ are not in their simplest form. |
| | An improper fraction is defined as a fraction where the numerator is greater than the denominator. | $\frac{10}{7},\frac{50}{9},\frac{240}{37}$ are all improper fractions. | $\frac{3}{4},\frac{9}{9},6\frac{1}{2}$ are not improper fractions. |
| | A mixed number is defined as an integer and a proper fraction. | $5\frac{1}{3},1\frac{3}{7},2\frac{10}{19}$ are all mixed numbers. | $\frac{3}{4},\frac{10}{9},6\frac{3}{2}$ are not mixed numbers. |
| 2. Comparing Fractions | An inequality compares the size of two quantities that aren't equal. | $<$ and $>$ are inequalities. We always read from left to right.<br><br>$3<12$ means 3 is less than 12.<br><br>$19.5>10$ means 19.5 is greater than 10. | $5=5,\ 40<30,\ 7>21$ are all incorrect. |
| | To compare fractions, we must either have a common numerator or a common denominator. | $\frac{5}{9}>\frac{2}{9}\quad\frac{4}{13}<\frac{7}{13}$<br><br>$\frac{1}{5}>\frac{1}{6}\quad\frac{5}{12}<\frac{5}{8}$ | $\frac{8}{13}\not>\frac{7}{8}$ |
| 3. Place Value | Values in different positions within a number indicate their place value. |  | |
| | Fraction to decimal conversions should either be known or calculated. | $0.24=\frac{24}{100}=\frac{6}{25}$ | $0.5\neq\frac{1}{5}$ |

Topic 3: Addition and Subtraction

| Topic/Skill | Definition/Tips | Example | Non-example |
|---|---|---|---|
| 1. Integers and Laws of Arithmetic | The Associative law is when we add together a pair of numbers within a larger calculation.<br><br>The associative law works for addition but not subtraction. | $4+8+2+6=4+10+6$ | |
| | The Commutative law allows us to change the order of numbers to simplify a calculation.<br><br>The commutative law works for addition but not subtraction. | $4+8+2+6=4+6+8+2$ | |
| | We can disassociate numbers into separate components to simplify calculations.<br><br>Disassociation can help with difficult subtractions. | $97+88=97+3+85$<br><br>$64-48=64-4-44$ | |
| 2. Negatives | Minus – name of the symbol<br>Subtract – name of the operation<br>Negative – name of the number below zero | | |
| | Adding a negative number is equivalent to subtracting. | $10+-7=10-7$ | $9+-1\neq 9+1$ |
| | Subtracting a negative is equivalent to adding. | $12--8=12+8$ | $4--9\neq 4-9$ |

| | | | |
|---|---|---|---|
| 3. Algebra | × means multiply<br><br>$x$ is how we write the letter of the alphabet<br><br>$3y$ means the value of the letter multiplied by 3. | $3\times 5$<br><br>$7x$ | $10\,x\,5$<br><br>$x13$ |
| | When simplifying expressions, we collect like terms.<br><br>We can write a subtraction as addition of a negative. This allows us to commute. | $4x+2+6x-3=10x-1$<br><br>$p^2-5p+3p^2-p=4p^2-6p$ | $3x+5y\neq 8xy$<br><br>$q^2+3q\neq 5q$ |
| 4. Decimals | When adding/subtracting decimals, it is important to consider the place value. | $3.17+4.1=7.27$ | $2.52+1.4\neq 3.56$ |
| 5. Fractions | When we add fractions, we must have a common denominator. | $\frac{4}{7}+\frac{2}{7}=\frac{6}{7}$ | $\frac{6}{13}+\frac{2}{13}\neq\frac{8}{26}$ |
| | If the fractions do not have a common denominator, we must adjust them. | $\frac{8}{5}+\frac{3}{4}=\frac{32}{20}+\frac{15}{20}=\frac{47}{20}$ | $\frac{1}{5}+\frac{7}{8}\neq\frac{8}{13}$ |
| | When adding/subtracting mixed numbers, we must use disassociation. | $1\frac{3}{5}+2\frac{1}{5}=3\frac{4}{5}$<br><br>$3\frac{1}{6}-1\frac{5}{6}=2-\frac{4}{6}=1\frac{2}{6}=1\frac{1}{3}$ | $3\frac{2}{9}+1\frac{4}{9}\neq 4\frac{4}{9}$<br><br>$4\frac{1}{8}-2\frac{5}{8}\neq -2\frac{4}{8}$ |

Year 7 Knowledge Organiser: HT1 All about me

## Classroom Communication Phrases

| | |
|---|---|
| Avez-vous ...? | Do you have ? (formal) |
| As-tu… ? | Do you have ? (informal) |
| Je peux quitter/enlever ma veste ? | Can I take off my blazer ? |
| Je peux boire ? | Can I have a drink ? |
| Je peux emprunter un stylo ? | Can I borrow a pen ? |
| J'ai oublié… | I have forgotten… |
| Je n'ai pas de … | I do not have… |
| Ça s'écrit comment ? | How do you spell that? |
| Je ne sais pas | I don't know |
| Je ne comprends pas | I don't understand |
| Répétez, s'il vous plaît | Repeat, please |
| Comment dire…en anglais/ français ? | How do you say... in English/French ? |
| Désolé d'être en retard<br>Je regrette d'arriver en retard | I am sorry I am late |

## Opinions

| | | | |
|---|---|---|---|
| J'aime | I like | ennuyeux | boring |
| Je n'aime pas | I don't like | nul | rubbish |
| Tu aimes…? | Do you like | essential | essential |
| Il aime | He likes | important | important |
| Elle aime | She likes | | |
| Oui, j'aime ça | Yes, I like that | | |
| Non, je n'aime pas ça | No, I don't like that | | |
| Je suis d'accord | I agree | | |
| Je ne suis pas d'accord | I don't agree | | |
| Ce n'est pas bien | It is not good | | |
| C'est | It is | | |
| génial | great | | |
| cool | cool | | |
| bien | good | | |

## High Frequency words

| | |
|---|---|
| et | and |
| aussi | also |
| mais | but |
| très | very |
| assez | quite |
| toujours | always |
| Qu'est-ce que..? | What? |
| Qui..? | Who? |

## Key verb

**Avoir = to have**

| | |
|---|---|
| J'ai | I have |
| Tu as | you have |
| Il a | he has |
| Elle a | she has |
| Nous avons | we have |
| Vous avez | you have |
| Ils/ elles ont | they have |

## Key verb

**Être = to be**

| | |
|---|---|
| Je suis | I am |
| Tu es | you are |
| Il est | he is |
| Elle est | she is |
| Nous sommes | we are |
| Vous êtes | you are |
| Ils/ elles sont | they are |

## Physical Descriptions

| | |
|---|---|
| Je m'appelle | I am called |
| J'ai onze/ douze ans | I am 11/ 12 years old |
| Il/ elle s'appelle | He/ she is called |
| beau/belle | good-looking |
| branché (e) | trendy |
| charmant (e) | charming |
| curieux/ curieuse | curious |
| de taille moyenne | average height |
| drôle | funny |
| généreux/ généreuse | generous |
| gentil (le) | nice |
| grand (e) | tall |
| impatient (e) | impatient |
| intelligent (e) | intelligent |
| modeste | modest |
| petit (e) | small |
| poli (e) | polite |
| mon ami (e) a | my friend has |

J'ai les yeux blues/ verts/ gris/ marron

*I have blue/ green/ grey/ brown eyes*

J'ai les cheveux longs/ mi-longs/ frisés/ raides/ blonds/ bruns/ noirs/ roux

*I have long/ medium/curly/straight/blond/brown/black/red hair*

Year 7 Knowledge Organiser: HT2 More about me

**Classroom Communication Phrases**

| | |
|---|---|
| Avez-vous ...? | Do you have ? (formal) |
| As-tu… ? | Do you have ? (informal) |
| Je peux quitter/enlever ma veste ? | Can I take off my blazer ? |
| Je peux boire ? | Can I have a drink ? |
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| Désolé d'être en retard | I am sorry I am late |

**Family members**

| | | | |
|---|---|---|---|
| Mon père | my dad | Mon frère | my brother |
| Ma mère | my mum | Ma grand-mère | my grandmother |
| Ma sœur | my sister | Mon grand- père | my grandfather |

**Opinions**

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| C'est | It is | | |
| génial | great | | |
| cool | cool | | |
| bien | good | | |

**High Frequency words**

| | |
|---|---|
| et | and |
| aussi | also |
| mais | but |
| très | very |
| assez | quite |
| toujours | always |
| Qu'est-ce que..? | What? |
| Qui..? | Who? |

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| | |
|---|---|
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| Tu as | you have |
| Il a | he has |
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| Vous avez | you have |
| Ils/ elles ont | they have |

**Key verb**

**Être = to be**

| | |
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| Je suis | I am |
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| Vous êtes | you are |
| Ils/ elles sont | they are |

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| ¿Tiene …? | Do you have ? (formal) |
| ¿Tienes…? | Do you have ? (informal) |
| ¿Puedo quitarme la chaqueta? | Can I take off my blazer ? |
| ¿Puedo beber ? | Can I have a drink ? |
| ¿Puedo prestar un bolí ? | Can I borrow a pen ? |
| He olvidado… | I have forgotten… |
| No tengo … | I do not have… |
| ¿Cómo se escribe? | How do you spell that? |
| No lo sé | I don't know |
| No entiendo | I don't understand |
| Repiete por favor | Repeat, please |
| ¿Cómo se dice en español/inglés? | How do you say.. in Spanish/English ? |
| Siento el retraso<br>Siento llegar tarde | I am sorry I am late |

## Opinions

| | | | |
|---|---|---|---|
| Me gusta(n) | I like | aburrido/a | boring |
| No me gusta(n) | I don't like | basura | rubbish |
| ¿Te gusta(n)… ? | Do you like | necesario | essential |
| Le gusta(n) | He likes | importante | important |
| Le gusta(n) | She likes | | |
| Sí me gusta… | Yes, I like that | | |
| No me gusta… | No, I don't like that | | |
| Soy de acuerdo | I agree | | |
| No soy de acuerdo | I don't agree | | |
| No es bueno | It is not good | | |
| Es | It is | | |
| genial | great | | |
| guay | cool | | |
| bueno/a | good | | |

## High Frequency words

| | |
|---|---|
| y | and |
| también | also |
| pero | but |
| muy | very |
| bastante | quite |
| siempre | always |
| ¿Qué? | What? |
| ¿Quién? | Who? |

## Key verb

**tener = to have**

| | |
|---|---|
| Tengo | I have |
| Tienes | you have |
| Tiene | he has |
| Tiene | she has |
| Tenemos | we have |
| Tenéis | you have |
| Tienen | they have |

## Key verb

**ser = to be**

| | |
|---|---|
| Soy | I am |
| Eres | you are |
| Es | he is |
| Es | she is |
| Somos | we are |
| Sois | you are |
| Son | they are |

## Physical Descriptions

| | |
|---|---|
| Me llamo | I am called |
| Tengo once/doce años | I am 11/ 12 years old |
| Se llama | He/ she is called |
| bonito/a | good-looking |
| de moda | trendy |
| encantador(a) | charming |
| curioso/a | curious |
| mediano/a | average height |
| cómico/a | funny |
| generoso/a | generous |
| simpático/a | nice |
| grande | tall |
| impaciente | impatient |
| inteligente | intelligent |
| modesto/a | modest |
| pequeño/a | small |
| educado/a | polite |

Tengo los ojos azules / verdes / grises / marrones

*I have blue/ green/ grey/ brown eyes*

Tengo el pelo largo / medio / ondulado / liso / rubio / marrón / negro / rojo

*I have long/ medium/curly/straight/blond/brown/black/red hair*

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## High Frequency words

| | |
|---|---|
| y | and |
| también | also |
| pero | but |
| muy | very |
| bastante | quite |
| siempre | always |
| Sin embargo | however |
| Por eso | therefore |

## Key verb

**estudiar = to study**

| | |
|---|---|
| Estudio | I study |
| Estudias | You study |
| Estudia | He/she studies |
| Estudiamos | We study |
| Estudías | You study (pl) |
| Estudian | They study |

## Key verb

**Tener – to have**

| | |
|---|---|
| Tengo | I have |
| Tienes | you have |
| Tiene | he/she has |
| Tenemos | we have |
| Tenéis | you have (pl) |
| Tienen | they have |

## Key verb

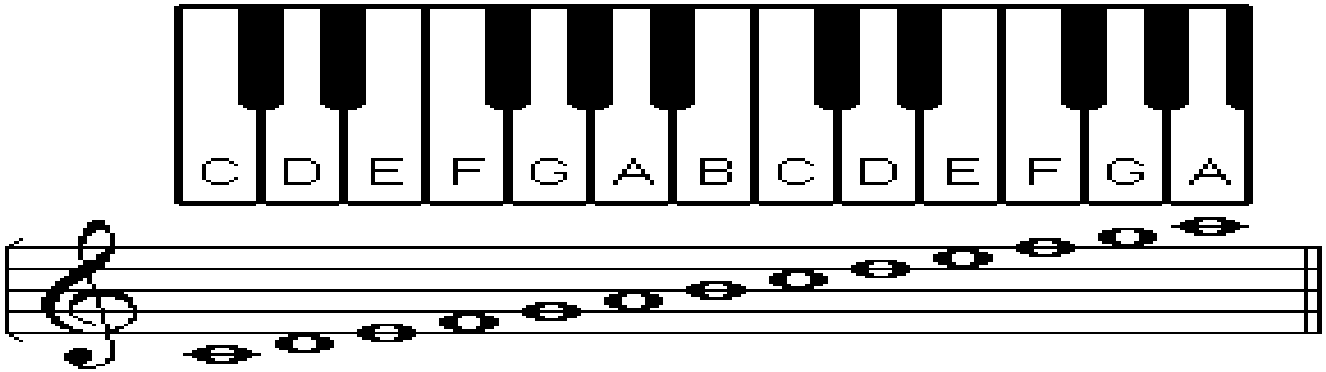
**Ser – to be**

| | |
|---|---|
| Soy | I am |
| eres | you are |
| es | he/she is |
| somos | we are |
| sóis | you are (pl) |
| son | they are |

## School Subjects and opinions

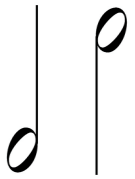
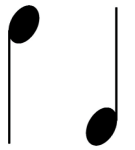
| | |
|---|---|
| Me encanta(n) | I love |
| Me gusta(n) mucho | I really like |
| Me gusta(n) | I like |
| No me gusta(n) | I don't like |
| No me gusta(n) nada | I don't really like |
| Odio | I hate |
| El español | Spanish |
| El fránces | French |
| El alemán | German |
| El inglés | English |
| La historia | History |
| La geografía | Geography |
| La religión | R.E |
| Las matemásticas | Maths |
| Las ciencias | Science |
| La educación física | P.E |
| La tecnología | Technology |
| La música | Music |
| Mi asignatura favorita es | My fav subject is |
| Mi asignatura menos favorita es | My least fav subject is |
| Porque | because |
| Es | it is |
| Son | they are |

# Music Year 7 Knowledge Organiser: Classical Traditions (Autumn Term)




| Instruments (Timbre) | | | | |
|---|---|---|---|---|
| **String** | **Wind** | **Brass** | **Percussion** | **Keyboard** |
| Violin | Piccolo | Trumpet | Timpani | Keyboard |
| Viola | Flute | French Horn | Tambourine | Piano |
| Cello | Oboe | Trombone | Triangle | Harpsichord |
| Double Bass | Cor Anglais | Tuba | Castanets | Organ |
| Harp | Clarinet | | Side Drum | Synthesiser |
| | Bassoon | | Xylophone | |

| Baroque (1600-1750) | Classical (1750-1820) | Romantic (1820-1899) |
|---|---|---|
| **Bach Handel** | **Mozart Haydn Beethoven** | **Tchaikovsky Chopin Liszt** |
| • Harpsichord<br>• Small ensembles<br>• Mainly string<br>• Vocal Music<br>• Continuo bass part (string & keyboard)<br>• Mainly polyphonic<br>• Limited dynamics | • Piano<br>• Mainly string orchestra with some wind and brass<br>• More use of dynamics<br>• 4 bar phrases | • Larger orchestra<br>• Lots of wind and brass<br>• More extreme dynamics<br>• Chromatic chords<br>• Use of Rubato (playing freely) |

| LOOKS LIKE | SOUNDS LIKE | DURA-TION | NAME |
|---|---|---|---|
|  | LI-I-I-ME  | 4 | SEMIBREVE |
|  | GRA-PE  | 2 | MINIM |
|  | PEAR  | 1 | CROTCHET |
|  | APP-LE  | 1/2 EACH | QUAVER (USUALLY GROUPED IN 2S) |

# Unit 1: Healthy Relationships
# Year 7

## Skills

- Engage with and reflect on different ideas, opinions and beliefs to help develop personal opinion.
- Can express and explain opinions through discussion and written work.
- Develop empathy with others and an understanding of how to safely and respectfully interact.


## Knowledge

1. That there are different types of committed, stable relationships and how these relationships might contribute to human happiness.
2. What marriage is, including its legal status and why marriage is an important relationship choice for many couples and why it must be freely entered into but also the characteristics and legal status of other types of long-term relationships.
3. The roles and responsibilities of parents with respect to raising children, including the characteristics of successful parenting. This element also includes unsafe practises within the family e.g. female genital mutilation.
4. How to determine whether relationships with adults and peers are safe or unsafe.
5. How stereotypes, in particular stereotypes based on sex, gender, race, religion, sexual orientation or disability, can cause damage.
6. Different types of bullying (including cyber-bullying), the impact of bullying, responsibilities of bystanders to report bullying and where to get help.
7. Safe online behaviours regarding data, privacy and interactions with friends online.

pshe
Personal Social Health Education

# Unit 2: Smoking
# Year 7

## Skills

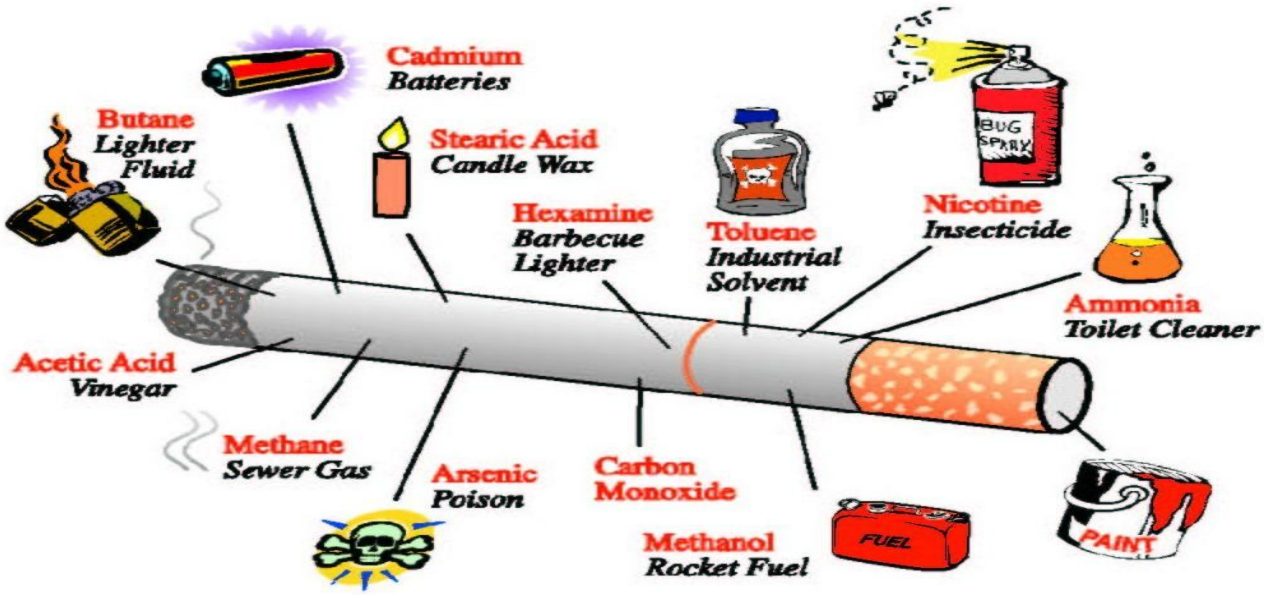
- Engage with and reflect on different ideas, opinions and beliefs to help develop personal opinion.
- Express and explain opinions through discussion and written assessments.
- Reflect on the knowledge and skills needed for setting realistic targets and personal goals.
- Work individually and with others to negotiate, plan and take action.
- Analyse and reflect upon action taken and progress made.

## Knowledge

Develop our awareness of the prevalence of smoking and to be aware of how many people smoke in the UK and in families.

Understand the dangers of smoking/passive smoking and the reasons why people smoke.

Understand the UK smoking law.




pshe

Personal Social Health Education

# Y7: REP

68% of the worlds population have stated that they have some belief in God or would claim to have some element of religious faith. Religion remains an important feature of our world and has been part of our lives for thousands of years. However, are we now at a crossroads where religions are often misunderstood, are misused and some would argue in decline? You are going to consider a variety of different religious, ethical and philosophical ideas to consider whether religion is still important and the role it continues to play in the world today.

**Knowledge Organiser**

## Religions

Lesson 1

### What has religion ever done for us?

*Can you give 2 examples why religion might be seen to be a positive thing & explain why?*

*Can you give 2 examples why religion might be seen to be a negative thing & explain why?*

Lesson 4

### The six main world religions: how much do you know?

*What are the 6 main world religions? Can you remember how to spell each one accurately?*

*Can you give 3 facts about each of them?*

Lesson 7

### Project: which religion will you study?

*Can you give me facts & information about your religions beliefs about life after death, God(s), rules & laws?*

## Ethics

Lesson 2

### The Ten Commandments: Do we need laws and rules?

*Can you explain why 2 of the commandments might still be important today?*

*Can you explain why 2 of the commandments might not be important today?*

Lesson 5

### Stereotyping and Prejudice: Are there enough good Samaritans?

*Can you describe and define the terms prejudice & discrimination?*

*Can you link this to and describe the story of the Good Samaritan?*

Lesson 8

### Should we care about the world?

*Can you give 3 examples of how we are harming our planet?*

*Can you define and describe why stewardship is important to Christians?*

## Philosophy

Lesson 3

### Does God exist?

*Can you define the terms atheist, agnostic & theistic?*

*Can you give me 2 arguments to suggest God does exist and 2 arguments to suggest that God does not exist? Evidence is key here.*

Lesson 6

### How was the world made?

*Can you give 2 arguments to suggest that God is responsible for creating the world?*

*Can you give 2 arguments to suggest that creation has NOTHING to do with God?*

Lesson 9

### Life after Death – unrealistic?

*Can you give the views of 2 different religions on what might happen when we die?*

*Do you think there is any real proof of life after death?*

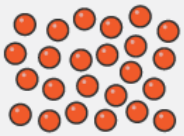
**Pupils will be assessed in lessons and complete an extended project on a religion of their choice. They will complete a formal examination at the end of the year.*

# Science

# 7C1 Part 1
# States of Matter

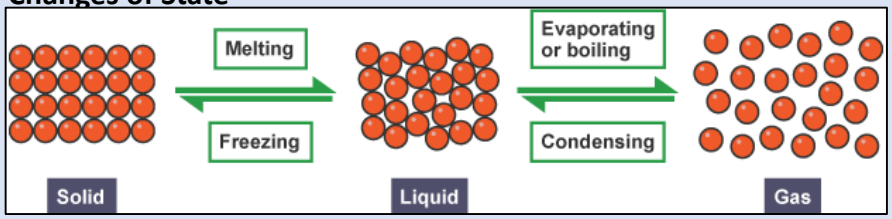
Factors affecting the rate of dissolving:
1. Stirring
2. Surface area of solute
3. Temperature of solvent

**States of Matter – SOLID LIQUID GAS**

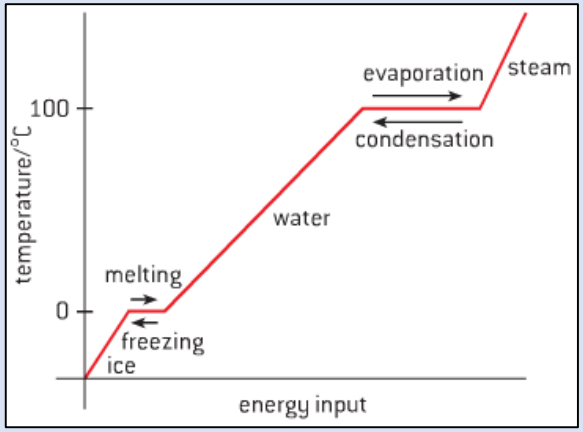
| State | Solid | Liquid | Gas |
|---|---|---|---|
| Diagram |  |  |  |
| Arrangement of particles | Regular arrangement | Randomly arranged | Randomly arranged |
| Movement of particles | Vibrate about a fixed position | Move around each other | Move quickly in all directions |
| Closeness of particles | Very close | Close | Far apart |

The particles should be the same in all 3 diagrams.

**Changes of State**




As a substance is heated it gains **energy**.
When the particles gain enough energy they overcome the **forces** between them.
Whilst a **change of state** is happening the **temperature** of the substance does not change. (flat line on graph)




**Sublimation**
When a solid changes into a gas without becoming a liquid first for example iodine is a grey solid which produces a purple vapour when heated.

**Deposition**
When a gas changes into a solid without becoming a liquid first.

**Pure substance** – made of one type of particle.

**Mixture** – two or more different substances not chemically combined and easily separated.

**Melting point** – the temperature at which a substance melts.

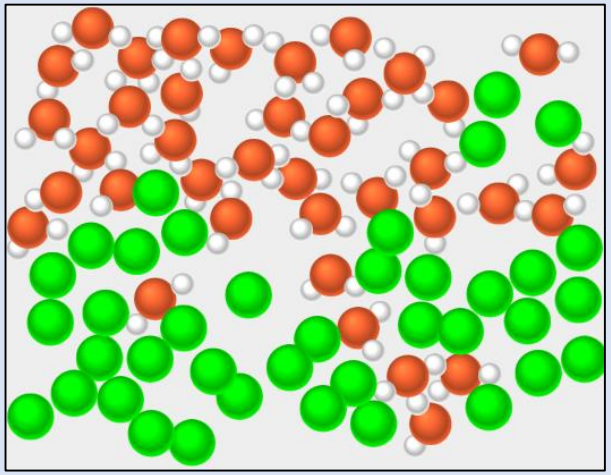
**Boiling point** – the temperature at which a substance boils.

**Dissolving**

When the particles in a solid spread out in a liquid.

We call the liquid the **SOLVENT** 

We call the solid the **SOLUTE** 



We call the mixture of the solid and the liquid a **SOLUTION**.

A solid that will dissolve in a liquid is called **SOLUBLE**.

A solid that will not dissolve in a liquid is called **INSOLUBLE**.

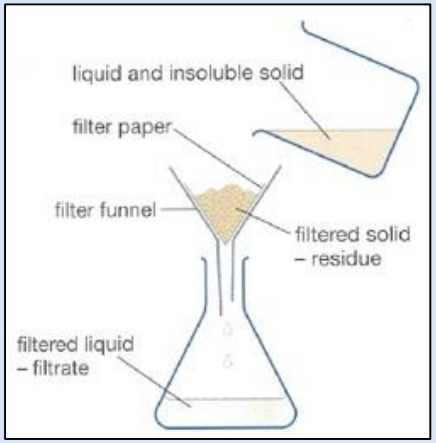
# 7C1 Part 2
# Separation Techniques

**Drinking Water:**
Reservoir → Sedimentation → Filtration → Chlorination → Drinking water

## Filtration

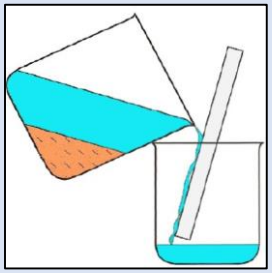
Separates an insoluble solid from a liquid.

The solid pieces are too big too fit through the holes in the filter Paper.



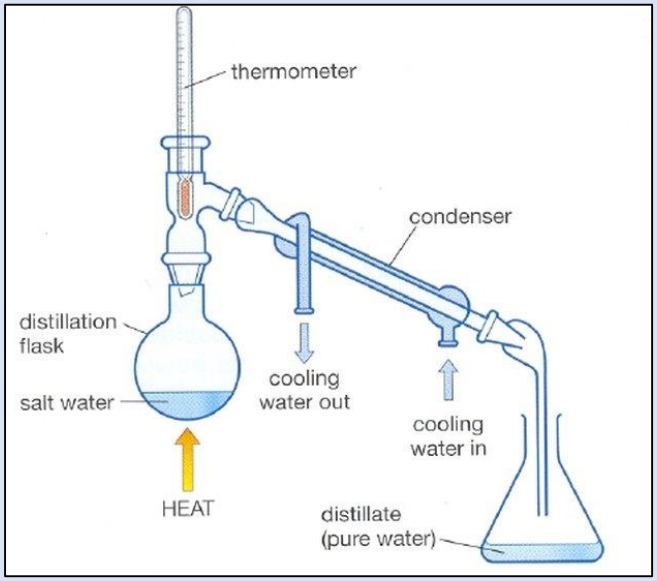

## Decanting

Pour a liquid from the top of a settled solid or a more dense liquid.



## Distillation

Separating substances with different boiling points.




Salt water mixture is heated.
At 100°C water boils and the particles gain enough energy to become a gas (water vapour).

Boiling point of salt is 1413°C so it does not boil and stays in the flask.

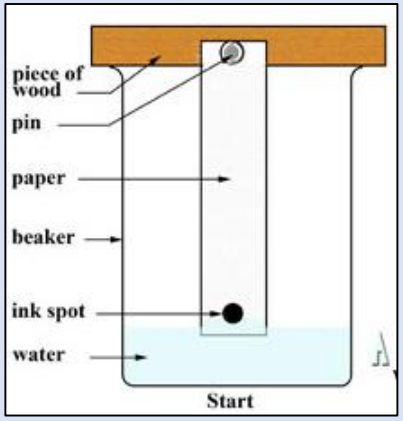
Water vapour rises and travels past the thermometer into the condenser.

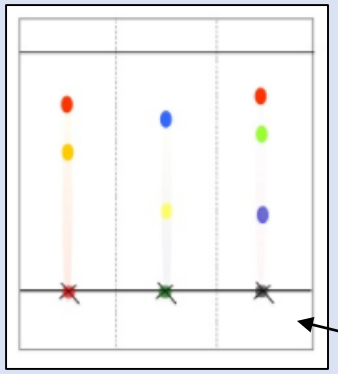
Thermometer checks the temperature to identify the gas.

Condenser cools the water vapour so that it condenses back to liquid water.

## Chromatography

**Method**
Draw pencil line.
Put dot of colour on line.
Hang bottom edge (below dot) in the water.
Leave until water soak up to almost the top of the paper..
Compare with known substances.



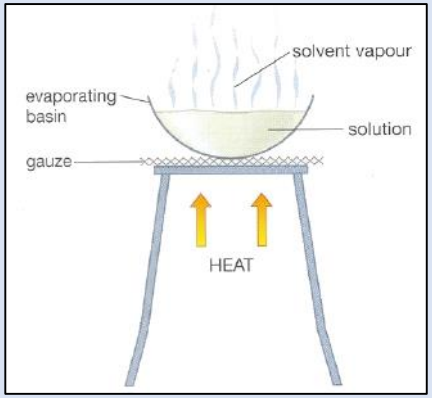



Chromatogram

Different colours contain different mixtures of inks.
The different inks move at different speeds up the paper.
This is because of different solubility.

## Evaporation

Separating a soluble solid from a liquid.




## Crystallisation

Heat until almost all the water has evaporated.
Leave for the remaining water to evaporate slowly to form crystals.

# Year 7 Knowledge Organiser : Bridging the Gap

## Laboratory Rules

Explosive

Flammable

Corrosive

Hazardous to the environment

1. No pupil may enter a Science room without permission.
2. NOTHING must be taken out of the laboratory without permission.
3. No equipment, apparatus or science materials may be touched except on the instruction of a teacher. Follow instructions precisely; check bottle labels carefully and keep tops on bottles except when pouring liquids from them.
4. When using naked flames (e.g. bunsen burners, spirit burners or candles), make sure that ties, hair, loose clothing etc. is tied back or tucked away. Care must be taken with hot items such at test tubes and tripods.
5. NEVER run in the laboratory.
6. DO NOT eat or drink in the laboratory.
7. DO NOT play with taps or switches.
8. Make sure you are fully aware of the health and safety issues for the experiment you are carrying out.
9. Wear eye protection when told to do so. Keep it on from the very start until all practical work is finished and cleared away. Only remove eye protection when told to do so.
10. Always stand up when working with hazardous substances or when heating things so you can quickly move out of the way if you need to.
11. Accidents, breakages or spills MUST be reported to the teacher at once. The teacher will then deal with them.
12. Keep your bench and floor area clear, with bags and coats well out of the way. Stools must be kept under benches.
13. If you are burnt or a chemical splashes on your skin, wash the affected part at once with lots of water. Tell your teacher.
14. Hands must be washed after working with chemicals or biological materials.
15. After an experiment, apparatus must be cleaned, put away and the bench left clean and dry. Waste materials should be disposed of as the teacher instructs.

Caution – harmful or irritant

Toxic

Radioactive material

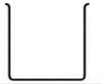
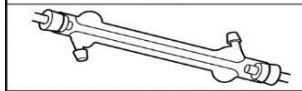
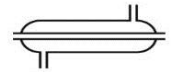
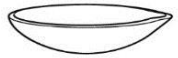
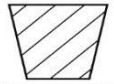
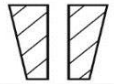
Health Hazard

Gas under Pressure

Oxidising

Risk of Electric shock

## Science Equipment

| Apparatus | Name | Diagram | What it is used for |
|---|---|---|---|
|  | test tube |  | storing or mixing solids and liquids |
|  | boiling tube |  | heating solids and liquids |
|  | beaker |  | holding liquids or solids |
|  | conical flask |  | holding and mixing liquids |
|  | round-bottom flask |  | heating liquids |
|  | measuring cylinder |  | measuring volumes of liquids |
|  | Liebig condenser |  | cooling a vapour and condensing it into a liquid |
|  | tripod |  | heating a beaker, flask or crucible over a Bunsen burner |
|  | gauze |  | supporting a beaker or flask and spreading the heat from the flame |
|  | Bunsen burner |  | heating things |
|  | evaporating basin |  | evaporating the water from a solution |
|  | filter funnel (with paper) |  | separating an insoluble solid from a liquid |
|  | rubber bung |  | keeping things in a tube or flask |
|  | rubber bung with a hole |  | the hole is so that a tube or thermometer can be put into the liquid without any gases escaping |

# 7P1 Energy Knowledge Organiser

**Energy Stores**:
Chemical
Kinetic
Gravitational
Elastic
Thermal
Magnetic
Electrostatic
Nuclear

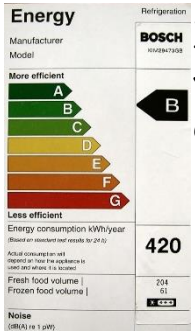
**Energy Transfers:**
Energy stores can be transferred in the following ways:
- Mechanical (sound)
- Electrical
- Heating
- Radiation (light)

electrically → radio → by radiation (sound) / by heating → THERMAL (environment)

Candle

CHEMICAL (wax + oxygen) → by heating / by radiation (light) → THERMAL (environment)

**Energy efficiency**:
The more efficient an appliance is the more is transfer input energy into useful energy




Appliances will have these labels stuck to them so you can see their efficiency.
You can calculate efficiency using the equation

$$\text{efficiency} = \frac{\text{useful energy out}}{\text{total energy in}} \times 100$$

**Law of conservation of energy** – Energy cannot be created or destroyed. It is only transferred

**Gravitational energy** depends on mass of the object (in kg), its height above the ground (m) and gravitational field strength, "g", which is 10N/kg

Gravitational Energy = mass x g x height

Gravitational energy practical: Investigate which ball is the most efficient at bouncing

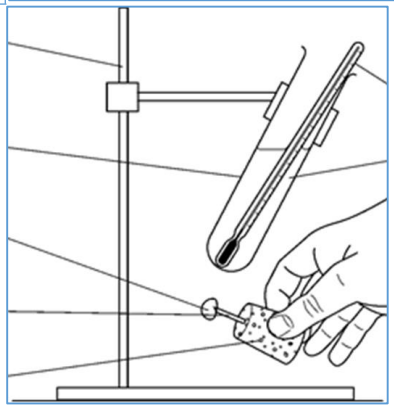
Independent variable – different types of balls
Dependent variable – the rebound height
Control variables:
- Drop the ball from the same height
- Measure the ball's position from the same point

**Energy Resources (non- renewable):**
Coal, Oil, Gas
Nuclear
(Fossil fuels contribute to global warming and are running out)

**Energy Resources** (renewable):
Solar
Wind
Hydroelectric
Wave
Tidal
Geothermal
Biomass

**Energy in food practical**

**Method:**
- Measure out a volume of water using a measuring cylinder and measure its temperature.
- Set fire to the food
- Use the flame from the food to heat the water.
- Measure the temperature of the water after the food has stopped burning



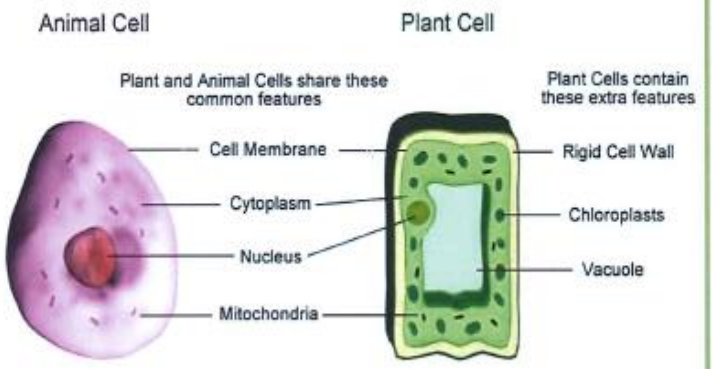
**Energy changes:**
- Chemical energy store in food transfers to the thermal store in the water

**Conclusion:**
The experiment where the water heats up the most is where the biggest chemical energy store has transferred to the thermal energy store in water

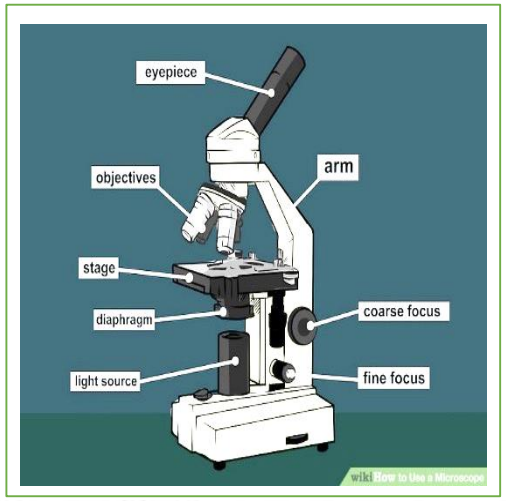
# Year 7 Knowledge Organiser : It's all about You : From Cells to Organisms

## Cells

Cells are the building blocks of all living organisms




| Part of the Cell | What Does it Do |
|---|---|
| Nucleus | Controls the activities of the cell/ Stores DNA |
| Cell Membrane | Controls movement into and out of the cell |
| Mitochondria | Where respiration takes place |
| Cytoplasm | jelly like substance where chemical reactions happen |
| Ribosome | makes proteins for the cell |
| Chloroplast | absorbs light energy for photosynthesis |
| Vacuole | filled with a solution called cell sap |




| Key Terms | Function |
|---|---|
| Stage | Area where specimen is placed |
| Clamps | Hold the specimen still whilst it is being viewed |
| Light source | Illuminates the specimen |
| Objective lens | Magnifies the image of the specimen |
| Eyepiece lens | Magnifies the image of the specimen |
| Course/fine focus | Used to focus the specimen so it can be seen clearly |
| Revolving nosepiece | Holds 2 or more objective lenses |

**Magnification**

We can use the following equation to calculate the magnification of an object viewed through a microscope:

$$magnification = \frac{image\ size}{actual\ size}$$

**Using a microscope**

To view an object down the microscope we can use the following steps:

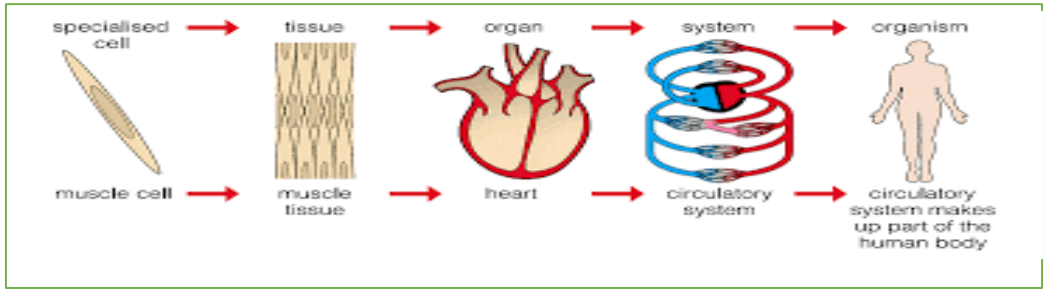
1. Plug in the microscope and turn on the power
2. Rotate the objectives and select the lowest power (shortest) one
3. Place the specimen to be viewed on the stage and clamp in place
4. Adjust the course focus until the specimen comes into view
5. Adjust the fine focus until the specimen becomes clear
6. To view the specimen in more detail repeat the process using a higher power objective

## Specialised cells

Specialised cells are found in multicellular organisms. Each specialised cell has a particular function within the organism.

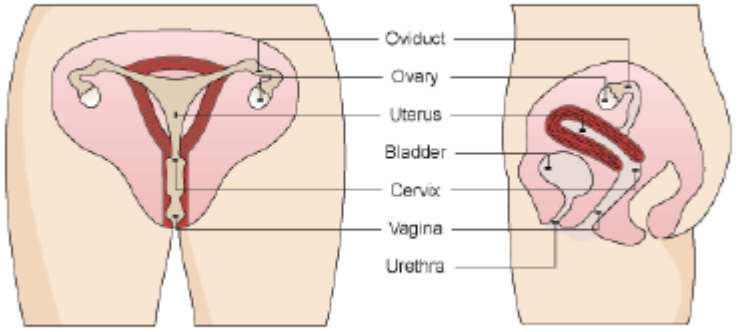
| | Type of cell | Function | Special features |
|---|---|---|---|
| Animal cells | Red blood cells | To carry oxygen | • Large surface area, for oxygen to pass through<br>• Contains haemoglobin, which joins with oxygen<br>• Contains no nucleus |
| Animal cells | Nerve cells | To carry nerve impulses to different parts of the body | • Long<br>• Connections at each end<br>• Can carry electrical signals |
| Animal cells | Male reproductive cell (sperm cell) | To reach female cell, and join with it | • Long tail for swimming<br>• Head for getting into the female cell |
| Plant cells | Root hair cell | To absorb water and minerals | • Large surface area |
| Plant cells | Leaf cell | To absorb sunlight for photosynthesis | • Large surface area<br>• Lots of chloroplasts |

**organelles → cells → tissues → organs → organ systems → organisms**

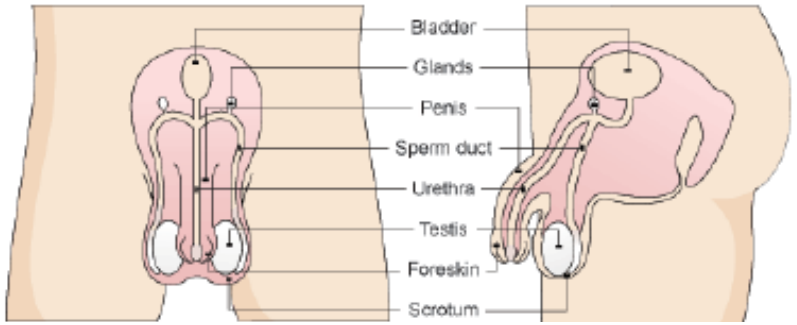


# Year 7 Knowledge Organiser : It's all about You : From Cells to Organisms Part 2

## Female reproductive system




## Male reproductive system




## Functions of female reproductive organs

| Structure | Function |
|---|---|
| Ovary | Contain undeveloped **gametes** (sex cells) called ova (or eggs). Every month, an egg matures and is released from the ovary. |
| Oviduct | Connects the ovaries to the uterus. Their cells are lined with cilia, tiny hairs that help waft the egg along to the uterus. |
| Uterus | A muscular bag with a soft lining, this is where an unborn baby develops. |
| Cervix | A ring of muscle which keeps the baby in place while the woman is pregnant. |
| Vagina | Muscular tube leading from the cervix to the outside of the woman's body. The vagina is where a man's penis enters during sexual intercourse. |

## Functions of male reproductive organs

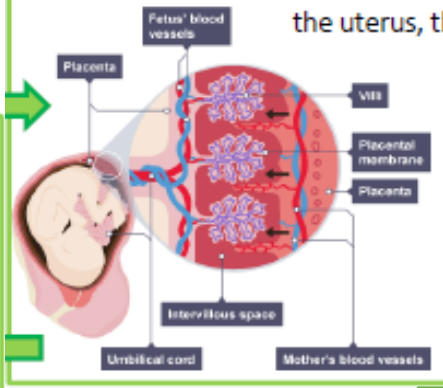
| Structure | Function |
|---|---|
| Testes | To produce **gametes** (sex cells) called sperm. Also makes male sex hormones. |
| Penis | Passes urine and semen out of the man's body. |
| Urethra | Tube inside the penis which carries urine and semen. |
| Sperm Duct | Sperm passes through these and mix with fluids produced by the glands, creating semen. |
| Glands | Produce fluids to provide the sperm cells with nutrients. |

## Fertilisation

Fertilisation will occur if the egg cell meets and joins with a sperm cell in the oviduct. The fertilised egg attaches to the uterus lining and the woman becomes pregnant. This stops the menstrual cycle, preventing the uterus lining from breaking down.

## Gestation

It takes approximately 40 weeks for a baby (foetus) to develop in the uterus, this time is known as gestation.




The placenta is an organ which provides oxygen and nutrients from the mother to the developing foetus. It also helps to remove waste such as carbon dioxide.
The foetus is connected to the placenta by the umbilical cord.

## The menstrual cycle

Takes place in the female reproductive system. It involves a cycle of events which last approximately 28 days, stopping if a woman becomes pregnant.

Day 1-5: The uterus lining breaks down. This is called menstruation.

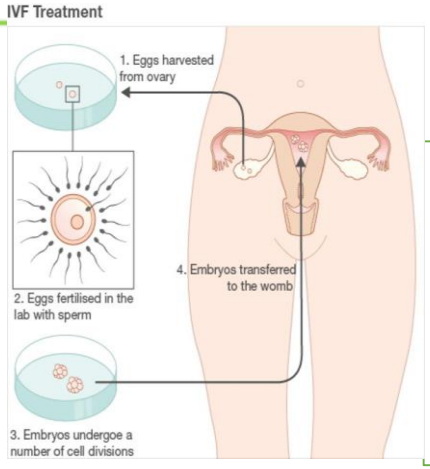
Day 5-14: A female **gamete** (egg cell) matures in one of the ovaries. The uterus lining thickens.

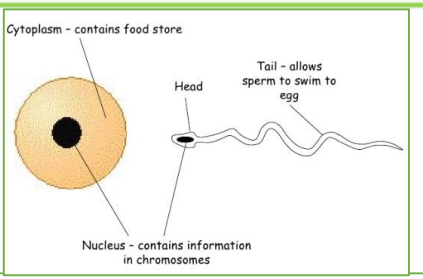
Day 14: The mature egg is released from the ovary. This is known as **ovulation**.

Day 14-21: The egg travels down the oviduct and towards the uterus. The cilia in the oviduct help to waft the egg to the uterus.

Day 21-28: If the egg cell does not meet with a sperm cell in the oviduct, the uterus lining will break down and the cycle will repeat.

## IVF




## Contraception – Methods used to prevent a woman from becoming pregnant during or following intercourse