





Knowledge Organisers
Year 7
Autumn 2019



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 important 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 ask 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?

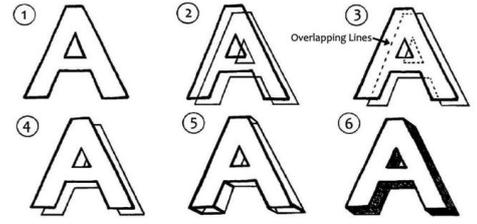
- Read through the organiser with your son/daughter – if you don't understand the content then ask them to explain it to you – 'teaching' you helps them to reinforce their learning.
- Test them regularly on the spellings of key words until they are perfect. Get them to make a glossary (list) of key words 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

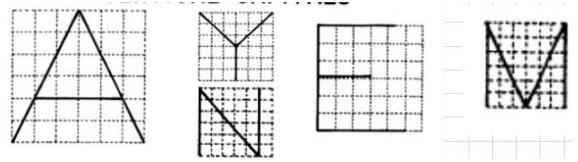
Knowledge Organiser - Term 1 & 2



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

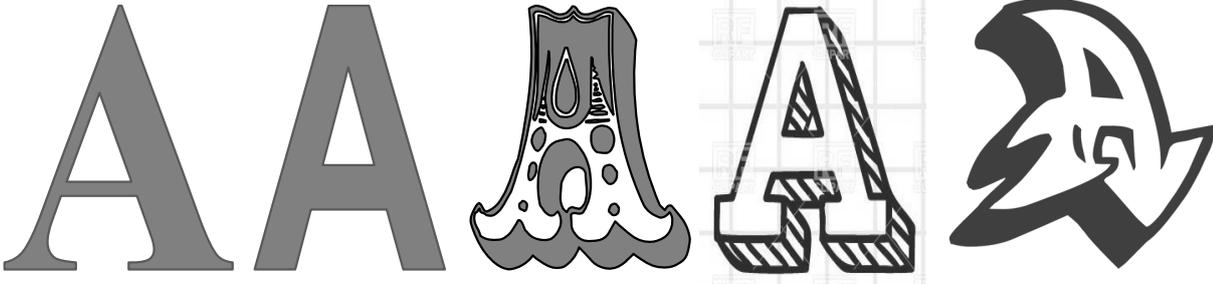
Use feint pencil lines to plan work, so it can easily be rubbed out

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



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

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



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

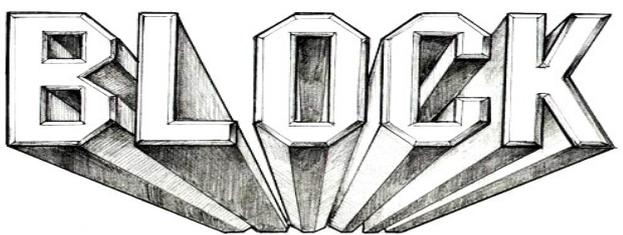
DECORATIVE font—has a lot of embellishment and detail qualities

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

TONAL

Gradually add more pressure for each darker value.

Increase pressure

Use very light pressure for 1st values

Controlling blends in Values

CROSSHATCH

4 directions very close together.

Lines cross in 4 directions.

Lines cross in 3 directions.

2 directions cross together.

Lines cross in 2 directions.

Begin with short lines in 1 direction.

"Crossover" lines from 1 to 4 directions

LINEAR

Saturate with fine lines as dark as possible.

Increase pressure.

More lines closer together.

Small, short lines in 1 direction.

Lines only in ONE direction

- 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.

<p>Malware</p>	<p>A term to describe malicious software. This is computer programs that have a negative impact on computer users or their devices.</p>	
<p>Virus</p>	<p>Usually come embedded in other documents and destroy data on your computer.</p>	
<p>Worm</p>	<p>Needs no human interaction. They travel around networks, looking for unprotected computers.</p>	
<p>Trojan horse</p>	<p>Malware that gives hackers access to a computer.</p>	

KS3 Computing: Data Representation

All data in a computer, such as text, numbers, images and sound can be represented by just using zeroes and ones..

Converting **binary to denary** numbers. Example: Convert 01110101 to denary.

Place value	128	64	32	16	8	4	2	1
	0	1	1	1	0	1	0	1

2. Add up the place values where there is a 1 below it.

$$64 + 32 + 16 + 4 + 1 = \underline{117}$$

Converting **denary to binary** numbers. Example: Convert 79 to binary

1. Write out the place values:

Place value	128	64	32	16	8	4	2	1

2. Imagine you had 1 coin worth each of the numbers above. You have to pay for a product costing your target number using the exact change.

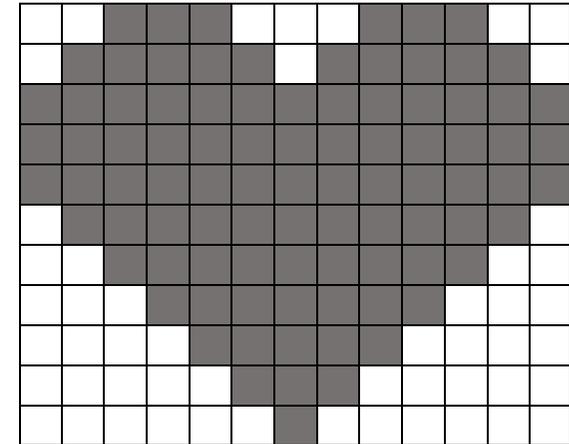
You would pay for a product costing 79 using coins 64, 8, 4, 2 and 1. These numbers add up to 79.

3. Write a 1 under those place values and a 0 under the others.

Place value	128	64	32	16	8	4	2	1
	0	1	0	0	1	1	1	1

Bitmap images are broken up into pixels. Each pixel is given a binary code which represents a colour.

If 1 represents white and 0 is black, the first line of this image could be stored as 1100011100011.



Run-length encoding (RLE) can shorten the bit pattern.

The number of the same colour is stored. The first five rows of this image could be:

2 1, 3 0, 3 1, 3 0, 3 1, 5 0, 1 1, 5 0, 1 1, 3 3 1.

This takes up less memory and means images can be downloaded more quickly.

Text is also stored in binary. Each character has its own bit pattern. The letters are stored in sequence.

'a' is 1100001; 'A' is 1000001. The binary numbers can be converted to 97 and 65.

'b' is 1100010; 'B' is 1000010. These numbers could be converted to 98 and 66.

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.

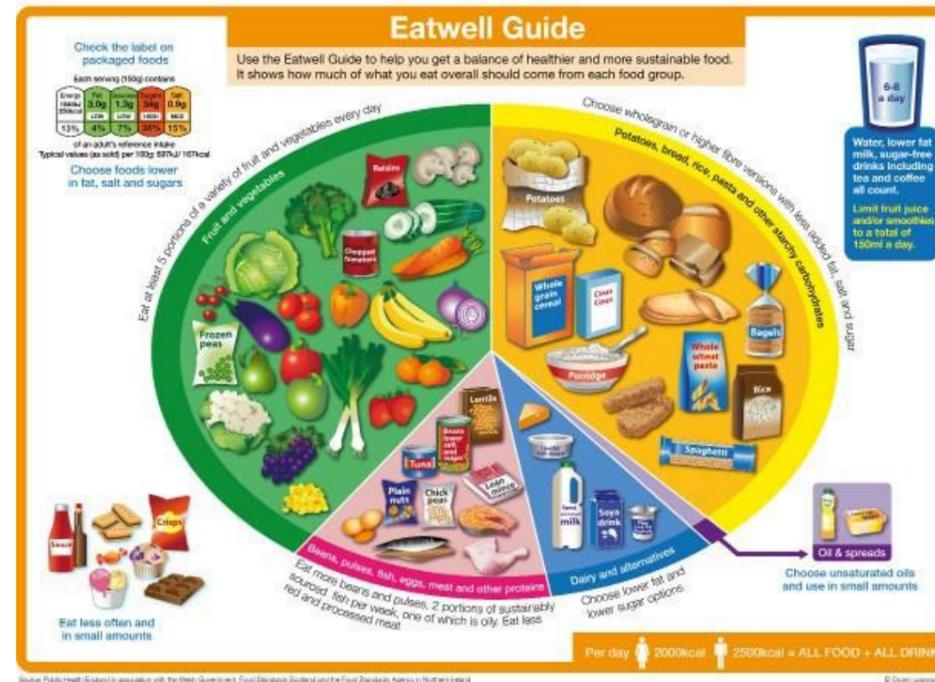
Performance - Tableaux, Non-Naturalism, Naturalism, Thought-Tracking, Emotion Memory, Magic If, Physical Theatre.

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	<ul style="list-style-type: none"> boiling and simmering stir frying
Using the oven	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> how to taste and season during cooking 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

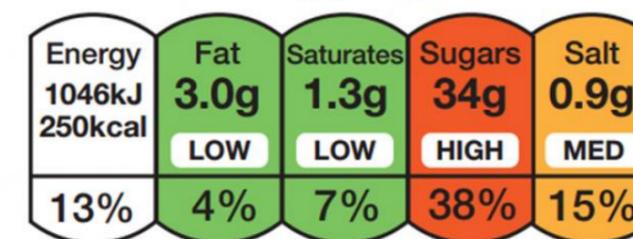
Tie up long hair
Wear an apron
Tuck tie in
Wash hands
No running
Use oven gloves when necessary
Clean practical equipment thoroughly

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

Each serving (150g) contains



of an adult's reference intake

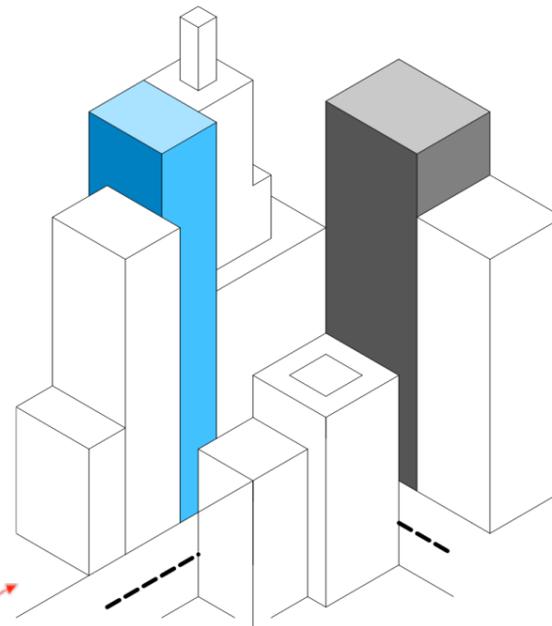
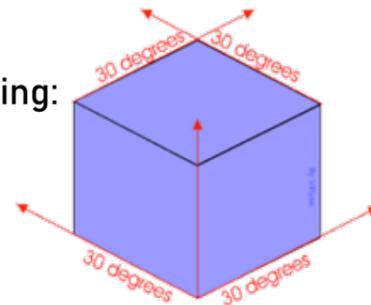
Typical values (as sold) per 100g: 697kJ/ 167kcal

Year 7 Design & Technology (Graphic Products) Knowledge Organiser

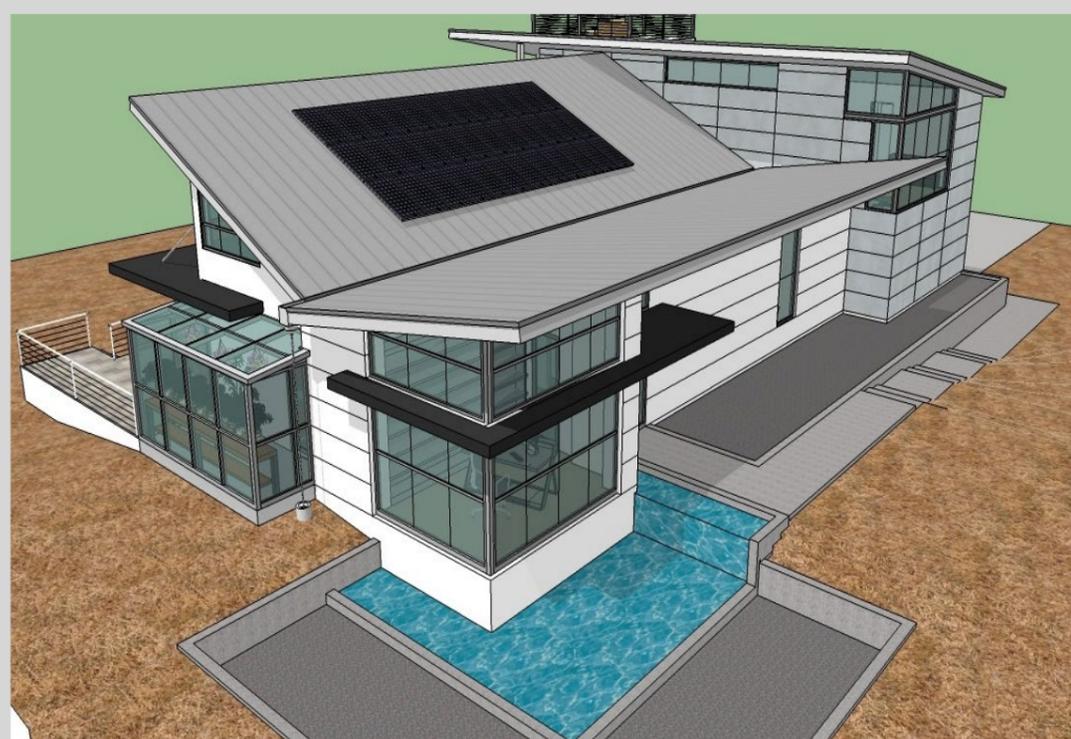
Sustainable House Design

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.

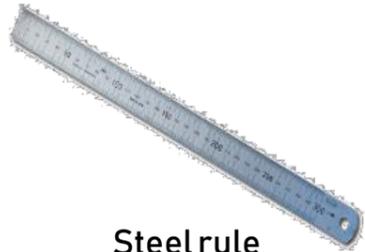
Year 7 Design & Technology (Product Design) Knowledge Organiser



Catamaran Boat Design

Key Skills

- Responding to a Design Brief
- Identifying a target audience and product function
- Applying Health & Safety procedures and PPE in the workshop environment
- Developing practical skills to create housing & dowel joints to join materials
- Identifying specific workshop tools and equipment
- Manufacturing a prototype model
- Finishing materials
- Presentation skills
- Evaluating the manufacturing process

Tools for working with Timber	
 Try square	 Bench vice
 Steel rule	 Marking gauge
 Tenon saw	 File
 Belt & Disc Sander	 Coping Saw
 Bench hook	 Pillar drill

Health & safety in the workshop
Tie long hair back
Wear an apron
Wear safety goggles must be worn when using machinery
Move slowly around the workshop
Be aware of where the emergency stop buttons
Ensure the ventilation is switch on prior to using a machine
Only one person operating a machine at one time
Report any injuries or breakages to the teacher immediately

Key vocabulary	
Design Brief	An written outline which explains the aims and objectives and milestones of a design project.
Function	What a product does, how it works and what it will be used for?
Target Audience	The person or people most likely to be interested in your design or product.
Materials	What something is made from.
Finishing	The process of applying a finish to preserve or protect a material & improve aesthetics.
Wood grain	Wood grain is the pattern made by the wood fibres in trees when it grows.
Modelling	To present ideas in 2D & 3D to the user (target audience) or client.
Prototype	A prototype is a model that is built to test to see if it is successful or whether it needs further modification or improvements.
PPE	Personal protective equipment are items such as goggles and aprons.

Timber is a natural material with imperfections, knots and grain. Remember always sand with the grain

Softwood



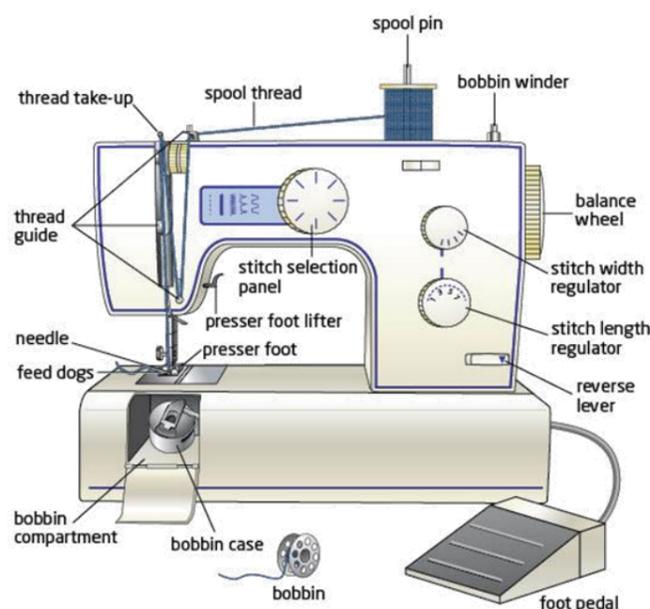
From coniferous trees that are evergreen, which are faster to grow and are less expensive than hardwoods. Softwoods are a sustainable material as the resource can be regrown and not depleted. Softwoods are strong and easy to work with.

Year 7 Design & Technology (Textiles) Knowledge Organiser

Mobile Phone or Tablet Stand Design

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 techniques:
 - Embroidery (machine & hand)
 - Appliqué (machine & hand)
 - 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 & machine appliqué	A variety of textured fabrics
Components used as decoration	Machine embroidery

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 attractive and pleasing to the eye.
Materials	What a product 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 sewing by hand or machine.
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 or machine.
Design Brief	An written outline which explains the aims and objectives and milestones of a design project.

LANGUAGE TERMINOLOGY FROM THIS UNIT READING TERMINOLOGY AND SKILLS

simile	Phrase with 'as' or 'like' to suggest similarity	explicit information	Information that is obvious or stated
metaphor	Suggesting something is something else	implicit information	Knowledge that can be implied from explicit information
personification	Given an inanimate object human qualities like movement or emotion	quotation	A direct use of language from a text. Use "___"
alliteration	Repetition of consonant sounds	*embedding quotations	Blending quotations into your analytical sentence structure
pathetic fallacy	Where the weather or setting reflects a mood	*judicious quotations	Keeping quotations short and focused on the most significant words

SENTENCE FORMS *zooming-in (analysis) Analysing the effects of specific language choices

SENTENCE STARTERS – REMEMBER COMMAS!

simple	A main or independent clause	connective	Begin with a linking word to add, develop, change or emphasise ideas
compound	Two main clauses linked with a conjunction	fronted adverbial	Begin a sentence with an -ly word or other adverb (word that describes a verb)
complex	A sentence made of a main and a subordinate clause	2 x adjective starter	Begin with two adjectives; use a conjunction between them like 'and'
declarative	A statement - most sentence types	preposition starter	State where the subject is to begin the sentence
imperative	A command beginning with a verb	*litotes	Begin with the negative: use 'Nothing...' or 'Never...' for example
interrogative	A question - direct or rhetorical. Use ?	*simile starter	Begin with 'Like....' to begin with a simile
exclamation	Emotion or humour. Use !		

ADVANCED PUNCTUATION FAMOUS WRITERS

*semi-colon	Used to replace 'and' in a compound sentence: <i>Like an angel, the sun shone; there wasn't a cloud to be seen.</i>	Charles Dickens (1812-1870)	<ul style="list-style-type: none"> Famous Victorian novelist who also championed the causes of the poor Famous for the novels <i>A Christmas Carol</i>, <i>Oliver Twist</i> and <i>Great Expectations</i> amongst many others
*colon	Means 'Here's my evidence' and follows a simple statement: <i>Majestically, the princess created a stir: she was beautiful!</i>	William Wordsworth (1770-1850)	<ul style="list-style-type: none"> Famous Romantic poet Lived a lot of his life in the Lake District - you can visit his cottage Was Poet Laureate Famous for the poem <i>I Wandered Lonely as a Cloud</i>
*dash	Single: Used to emphasise a description at the end of a sentence: <i>Happily, the sun shone - its rays reached across the whole land.</i> Double: Used to emphasise a description with further emphasis: <i>The sun's rays - its burning, radiant rays - shone across the kingdom.</i>	Charlotte Brontë (1816-1855)	<ul style="list-style-type: none"> Famous gothic romance novelist Lived in Haworth, Yorkshire Wrote under a male pen name, Currer Bell Famous for the novel <i>Jane Eyre</i>

KEY TERMINOLOGY FOR ANALYSING PROSE		ADVERBS AND VERBS FOR ANALYSING EFFECTS	
prose	Continuous writing with no metre	deliberately	implies
mood	The feelings/emotions of a novel	intentionally	infers
tone	The attitudes of writing	purposefully	suggests
context	The influence of the time a novel is read or written	arguably	creates
dialogue	Conversation between at least two characters	possibly	chooses/uses
characterisation	How a character is constructed	cleverly	highlights
setting	Where the action takes place	effectively	emphasises
first person narration	Perspective using 'I'; allows for emotional insight	powerfully	evokes
third person narration	Perspective using 'He'/'She'/'They	*emphatically	conveys
*omniscient narration	Ability of a narrator to understand the emotions of all characters	*dramatically	develops
*withholding	What the writer isn't allowing us to know	*vividly	describes
*foreshadowing	Events that suggest future ones	*passionately	intensifies
LANGUAGE TECHNIQUES YOU WILL ENCOUNTER		*emotively	establishes
lexis	Impressive word for 'word'!	*subtly	builds-up
simile	Phrase with 'as' or 'like' to suggest similarity	*skilfully	illustrates
metaphor	Suggesting something is something else	*sensitively	explores
figurative language	Any non-literal language that is used for effect	CONNECTIVES TO ADD AND DEVELOP SPEEDY PARAGRAPHS	
alliteration	Repetition of consonant sounds	Furthermore,...	However,...
onomatopoeia	Words that are spoken as they sound	Moreover,...	Yet,...
pathetic fallacy	Where the weather or setting reflects a mood	Meanwhile,...	Conversely,...
personification	Given an inanimate object human qualities like movement or emotion	In addition,...	On the other hand,...
COMMON THEMES IN CHILDREN'S FICTION			
maturity	discrimination	parent-child relationships	romance
			personal challenges

ADVERB



VERB



Year 7 Geography

Unit 1: A Sense of Place



KEYWORDS



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.

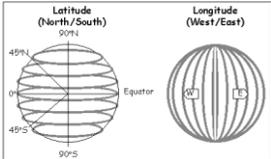
There are 5 main **oceans** around the world including the Indian, Pacific, Atlantic, Southern and the Arctic.



Lesson 4

Latitude varies from 0-90° north and south at the poles. They are **horizontal**.

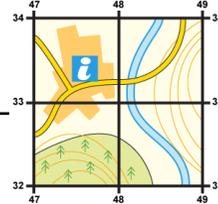
Longitude varies from 0-180° East and West from Greenwich. They are **vertical**.



Lesson 5

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

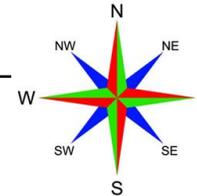
It is bordered by the **Arctic Ocean** to the north, the **Atlantic Ocean** to the west and the **Mediterranean Sea** to the south.



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. These are the vertical lines on an OS map.



Year 7 Geography

Unit 1: A Sense of Place



KEYWORDS



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.

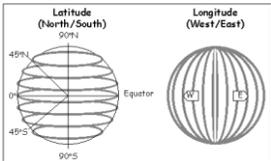
There are 5 main **oceans** around the world including the Indian, Pacific, Atlantic, Southern and the Arctic.



Lesson 4

Latitude varies from 0-90° north and south at the poles. They are **horizontal**.

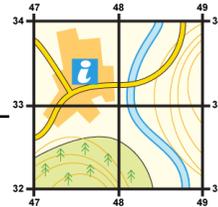
Longitude varies from 0-180° East and West from Greenwich. They are **vertical**.



Lesson 5

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

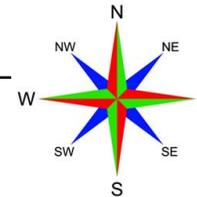
It is bordered by the **Arctic Ocean** to the north, the **Atlantic Ocean** to the west and the **Mediterranean Sea** to the south.



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

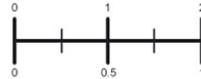
Spot heights - Numbers that show the exact height of a place

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/>

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Year 7 Geography

Unit 2: Settlement



KEYWORDS

LOOK
SAY
COVER
WRITE
CHECK

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

Protection. Good views from a hilltop give you warning if you are about to be attacked.

Building materials. Needed wood or stone. Useful to be near a wood or a rocky hillside.

Supply of wood. Needed for warmth and to cook on.

Plenty of water. Needed for drinking, cooking and washing. Water might come from a river, spring or well.

Not too much water. Sites must not flood or be marshy.

Rivers. Easy to cross either on foot at a ford or by a bridge.

Shelter. A south facing slope will have more sun and will be protected from the cold north wind.

Flat land. Easier to build on, for growing crops and travelling to other towns.

UP THE BRITS

ROMA RULES

'Is this a good place to build a village?'

'Is this a good place to build a town?'

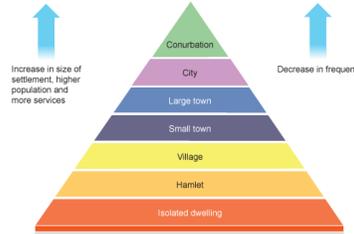
Settlement size:

Hamlet - a small group of homes

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

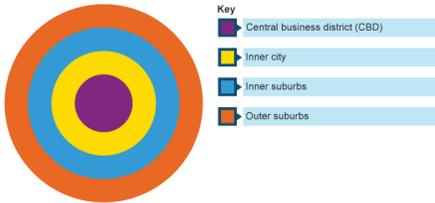
Town - this may contain tens of thousands of people. Usually has a range of functions, such as shopping centres and secondary schools

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.



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:

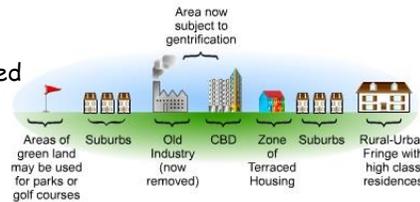
- overcrowding
- poor-quality housing
- traffic congestion

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.



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.



	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.



Year 7 Geography

Unit 2: Settlement



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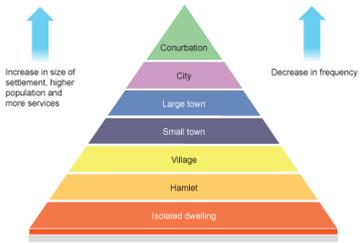
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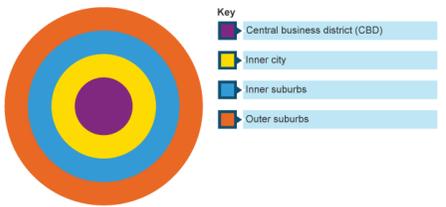
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What was it like to live in Medieval Britain?

Big Question – How has Manchester Changed Since 1500?

Timeline of Key Events

79 BC – Romans build a wooden fort at Mamucium
1350 – Flemish weavers introduce the textile industry
1603 – The plague strikes Manchester. Up to a quarter of the population die
1784 – Quarry Bank Mill first opens
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1829-51 - Cholera pandemic strikes Manchester
1840 - The first Free Trade Hall is built
1878 - Establishment of Newton Heath Lancashire and Yorkshire Railway Football Club, the team that will become Manchester United
1903 (10th October) – The Suffragette movement is founded
1968 (29 May) - Manchester United become the first English winners of the European Cup
1996 (15 June) - Manchester bombing by the Provisional Irish Republican Army

Keyword

Definition

Industrial Revolution	A great change in how things are produced
Peterloo Massacre	An attack on pro-democracy supporters in Manchester (1819)
Suffragettes	A militant, female pro-democracy protest movement
Cottonopolis	Manchester's 19 th Century nickname
Steam Engine	A steam powered machine
Cholera	A disease caused by dirty water
Trade Union	An organisation that protects workers' rights
Locomotion	To move from one place to another
Protest	To show you disapprove of something
Useful Websites	https://www.bbc.com/bitesize/topics/zm7qtfr https://www.nationaltrust.org.uk/quarry-bank

Assessment Objectives

- To **reach a judgement** about the influence Manchester had on the rest of Britain between 1500 - 2000
- To know and understand how the Industrial Revolution **caused** a huge economic growth that was a catalyst for political, social and cultural change
- To learn about the **causes** of the Peterloo Massacre
- To learn about the **consequences** of the Industrial Revolution in Manchester
- To learn about Quarry Bank Mill and the effect of the Greg family on their workers

Key People

Emmeline Pankhurst	
Samuel Greg	
Queen Victoria	
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HISTORY - Historical Skills and Chronology
Big Question – What do I need to know to be a great Historian?

Timeline of my life	Keyword	Definition
	Chronology	The study or order of time
	Source	A piece of information
	Interpretation	A developed opinion of an event or person
	Time	The measurement of history
	Author	A writer of a book, article, or document
	Purpose	The reason for which something is done or created
	Cause	Why something happens
	Consequence	The results of an action
	Conclusion	A final decision or judgement
	Anachronism	A mistake in time
	Century	100 years
Assessment Objectives	BC	Before Christ
<ul style="list-style-type: none"> • To understand how and how sources / interpretations differ. • To understand how and why sources / interpretations differ. • To learn how to chronologically order events in History. • To learn about the causes and consequences of events in History. • To learn how to write an essay. 	AD	Anno Domini (In the year of our Lord)
	Questions for my teacher	

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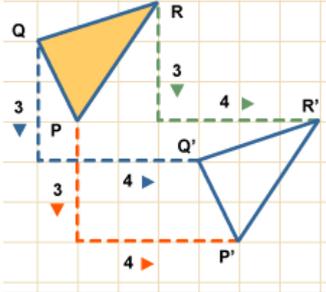
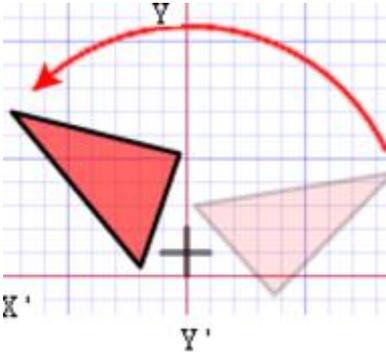
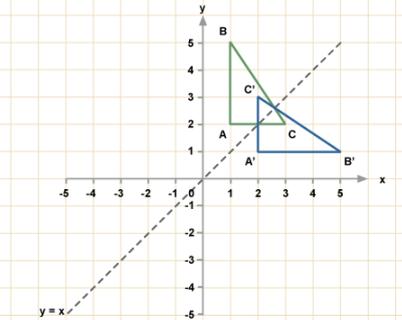
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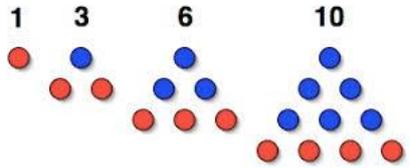
Stage 7: Mathematical Movement

Topic/Skill	Definition/Tips	Example
1. Translation	<p>Translate means to move a shape. The shape does not change size or orientation.</p>	
2. Column Vector	<p>In a column vector, the top number moves left (-) or right (+) and the bottom number moves up (+) or down (-)</p>	<p>$\begin{pmatrix} 2 \\ 3 \end{pmatrix}$ means '2 right, 3 up'</p> <p>$\begin{pmatrix} -1 \\ -5 \end{pmatrix}$ means '1 left, 5 down'</p>
3. Rotation	<p>The size does not change, but the shape is turned around a point.</p> <p>Use tracing paper.</p>	<p>Rotate Shape A 90° anti-clockwise about (0,1)</p> 
4. Reflection	<p>The size does not change, but the shape is 'flipped' like in a mirror.</p> <p>Line $x = ?$ is a vertical line. Line $y = ?$ is a horizontal line. Line $y = x$ is a diagonal line.</p>	<p>Reflect shape C in the line $y = x$</p> 
5. Enlargement	<p>The shape will get bigger or smaller. Multiply each side by the scale factor.</p>	<p>Scale Factor = 3 means '3 times larger = multiply by 3'</p> <p>Scale Factor = $\frac{1}{2}$ means 'half the size = divide by 2'</p>

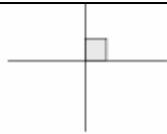
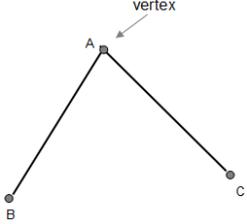
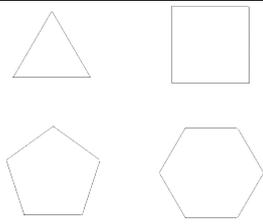
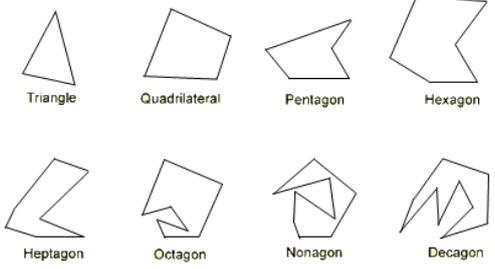
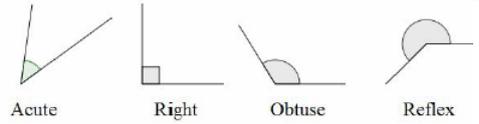
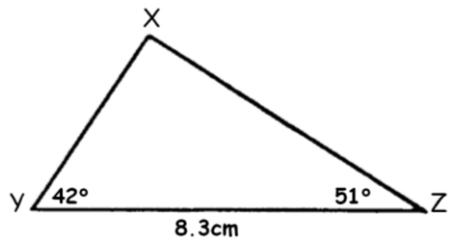
Stage 7: Numbers and the Number System

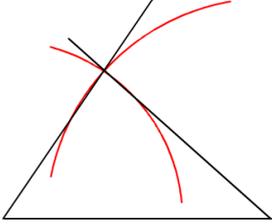
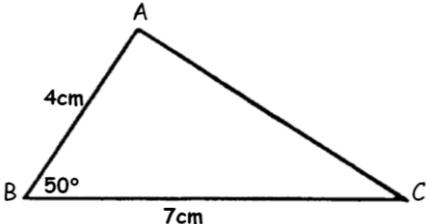
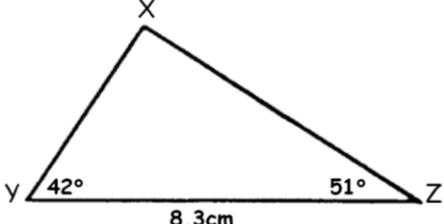
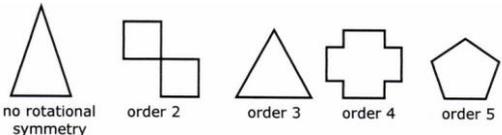
Topic/Skill	Definition/Tips	Example
1. Multiple	The result of multiplying a number by an integer. The times tables of a number.	The first five multiples of 7 are: 7, 14, 21, 28, 35
2. Factor	A number that divides exactly into another number without a remainder. It is useful to write factors in pairs	The factor pairs of 18 are: 1, 18 2, 9 3, 6
3. Lowest Common Multiple (LCM)	The smallest number that is in the times tables of each of the numbers given.	The LCM of 3, 4 and 5 is 60 because it is the smallest number in the 3, 4 and 5 times tables.
4. Highest Common Factor (HCF)	The biggest number that divides exactly into two or more numbers.	The HCF of 6 and 9 is 3 because it is the biggest number that divides into 6 and 9 exactly.
5. Prime Number	A number with exactly two factors, 1 and itself . The number 1 is not prime , as it only has one factor, not two.	The prime numbers up to 50 are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47
6. Square Numbers	The number you get when you multiply a number by itself .	The first 15 square numbers are 1 x 1 = 1 2 x 2 = 4 3 x 3 = 9 4 x 4 = 16 5 x 5 = 25 6 x 6 = 36 7 x 7 = 49 8 x 8 = 64 9 x 9 = 81 10 x 10 = 100 11 x 11 = 121 12 x 12 = 144 13 x 13 = 169 14 x 14 = 196 15 x 15 = 225
7. Square Root	The number you multiply by itself to get another number. The reverse process of squaring a number.	$\sqrt{36} = 6$ because $6 \times 6 = 36$
8. Cube Numbers	The result of a number being multiplied by itself three times. 5^3 is read as '5 to the power of 3' and means '3 lots of 5 multiplied together'	The first 5 cubes numbers are 1 x 1 x 1 = 1 2 x 2 x 2 = 8 3 x 3 x 3 = 27 4 x 4 x 4 = 64 5 x 5 x 5 = 125
9. Cube Root	The number you multiply by itself and itself again to get another number. The reverse process of cubing a number.	$\sqrt[3]{125} = 5$ because $5 \times 5 \times 5 = 125$

Stage 7: Sequences

Topic/Skill	Definition/Tips	Example
1. Linear Sequence	A number pattern with a common difference .	2, 5, 8, 11... is a linear sequence
2. Term	Each value in a sequence is called a term.	In the sequence 2, 5, 8, 11..., 8 is the third term of the sequence.
3. Term-to-term rule	A rule which allows you to find the next term in a sequence if you know the previous term .	First term is 2. Term-to-term rule is 'add 3' Sequence is: 2, 5, 8, 11...
4. Fibonacci type sequences	A sequence where the next number is found by adding up the previous two terms	The Fibonacci sequence is: 1,1,2,3,5,8,13,21,34 ... An example of a Fibonacci-type sequence is: 4, 7, 11, 18, 29 ...
5. Triangular numbers	The sequence which comes from a pattern of dots that form a triangle. 1, 3, 6, 10, 15, 21 ...	

Stage 7: Visualising and Constructing

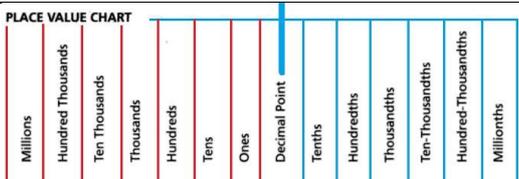
Topic/Skill	Definition/Tips	Example
1. Parallel	Parallel lines never meet.	
2. Perpendicular	Perpendicular lines are at right angles. There is a 90° angle between them.	
3. Vertex	A corner or a point where two lines meet.	
4. Polygon	A 2D shape with only straight edges .	Rectangle, Hexagon, Decagon, Kite etc.
5. Regular	A shape is regular if all the sides and all the angles are equal .	
6. Names of Polygons	3-sided = Triangle 4-sided = Quadrilateral 5-sided = Pentagon 6-sided = Hexagon 7-sided = Heptagon/Septagon 8-sided = Octagon 9-sided = Nonagon 10-sided = Decagon	
7. Types of Angles	Acute angles are less than 90° . Right angles are exactly 90° . Obtuse angles are greater than 90° but less than 180° . Reflex angles are greater than 180° but less than 360° .	
8. Angle and Line Notation	The angle made by points A B and C is ABC. Can use one lower-case letter, eg. θ or x The line between two points A and B is AB or BA	 $YZ = ZY = 8.3\text{cm}$ $XYZ = ZXY = 42^\circ$

<p>9. Constructing Triangles (Side, Side, Side)</p>	<ol style="list-style-type: none"> 1. Draw the base of the triangle using a ruler. 2. Open a pair of compasses to the width of one side of the triangle. 3. Place the point on one end of the line and draw an arc. 4. Repeat for the other side of the triangle at the other end of the line. 5. Using a ruler, draw lines connecting the ends of the base of the triangle to the point where the arcs intersect. 	
<p>10. Constructing Triangles (Side, Angle, Side)</p>	<ol style="list-style-type: none"> 1. Draw the base of the triangle using a ruler. 2. Measure the angle required using a protractor and mark this angle. 3. Remove the protractor and draw a line of the exact length required in line with the angle mark drawn. 4. Connect the end of this line to the other end of the base of the triangle. 	
<p>11. Constructing Triangles (Angle, Side, Angle)</p>	<ol style="list-style-type: none"> 1. Draw the base of the triangle using a ruler. 2. Measure one of the angles required using a protractor and mark this angle. 3. Draw a straight line through this point from the same point on the base of the triangle. 4. Repeat this for the other angle on the other end of the base of the triangle. 	
<p>12. Rotational Symmetry</p>	<p>An object has rotational symmetry if you can rotate the image around the centre and it looks the same.</p> <p>The number of times that it can be rotated is called the order of symmetry.</p>	

Stage 7: Counting and Comparing

Topic/Skill	Definition/Tips	Example
1. Integer	A whole number that can be positive, negative or zero.	-3, 0, 92
2. Decimal	A number with a decimal point in it. Can be positive or negative.	3.7, 0.94, -24.07
3. Negative Number	A number that is less than zero . Can be decimals.	-8, -2.5
4. Inequality	An inequality says that two values are not equal . $a \neq b$ means that a is not equal to b.	$7 \neq 3$ $x \neq 0$
5. Inequality symbols	$x > 2$ means x is greater than 2 $x < 3$ means x is less than 3 $x \geq 1$ means x is greater than or equal to 1 $x \leq 6$ means x is less than or equal to 6	State the integers that satisfy $-2 < x \leq 4$. -1, 0, 1, 2, 3, 4
6. Fraction	A mathematical expression representing the division of one integer by another. Fractions are written as two numbers separated by a horizontal line .	$\frac{2}{7}$ is a 'proper' fraction. $\frac{9}{4}$ is an 'improper' or 'top-heavy' fraction.
7. Numerator	The top number of a fraction.	In the fraction $\frac{3}{5}$, 3 is the numerator.
8. Denominator	The bottom number of a fraction.	In the fraction $\frac{3}{5}$, 5 is the denominator.
9. Equivalent Fractions	Fractions which represent the same value .	$\frac{2}{5} = \frac{4}{10} = \frac{20}{50} = \frac{60}{150}$ etc.
10. Comparing Fractions	To compare fractions, they each need to be rewritten so that they have a common denominator . Ascending means smallest to biggest . Descending means biggest to smallest .	Put in to ascending order : $\frac{3}{4}, \frac{2}{3}, \frac{5}{6}, \frac{1}{2}$. Equivalent: $\frac{9}{12}, \frac{8}{12}, \frac{10}{12}, \frac{6}{12}$ Correct order: $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}$

Stage 7: Calculating

Topic/Skill	Definition/Tips	Example
1. Addition	To find the total , or sum , of two or more numbers. 'add', 'plus', 'sum'	$3 + 2 + 7 = 12$
2. Subtraction	To find the difference between two numbers. To find out how many are left when some are taken away. 'minus', 'take away', 'subtract'	$10 - 3 = 7$
3. Multiplication	Can be thought of as repeated addition . 'multiply', 'times', 'product'	$3 \times 6 = 6 + 6 + 6 = 18$
4. Division	Splitting into equal parts or groups. The process of calculating the number of times one number is contained within another one . 'divide', 'share'	$20 \div 4 = 5$ $\frac{20}{4} = 5$
5. Remainder	The amount ' left over ' after dividing one integer by another.	The remainder of $20 \div 6$ is 2, because 6 divides into 20 exactly 3 times, with 2 left over.
6. BIDMAS	An acronym for the order you should do calculations in. BIDMAS stands for ' Brackets, Indices, Division, Multiplication, Addition and Subtraction '. Indices are also known as 'powers' or 'orders'. With strings of division and multiplication, or strings of addition and subtraction, and no brackets, work from left to right.	$6 + 3 \times 5 = 21$, <i>not</i> 45 $5^2 = 25$, where the 2 is the index/power. $12 \div 4 \div 2 = 1.5$, <i>not</i> 6
7. Place Value	The value of where a digit is within a number.	In 726, the value of the 2 is 20, as it is in the 'tens' column.
8. Place Value Columns	The names of the columns that determine the value of each digit . The 'ones' column is also known as the 'units' column.	 <p>PLACE VALUE CHART</p> <p>Millions Hundred Thousands Ten Thousands Thousands Hundreds Tens Ones Decimal Point Tenths Hundredths Thousandths Ten-Thousandths Hundred-Thousandths Millionths</p>

Stage 7: Algebraic Proficiency

Topic/Skill	Definition/Tips	Example
1. Expression	A mathematical statement written using symbols, numbers or letters ,	$3x + 2$ or $5y^2$
2. Equation	A statement showing that two expressions are equal	$2y - 17 = 15$
3. Formula	Shows the relationship between two or more variables	Area of a rectangle = length x width or $A = L \times W$
4. Simplifying Expressions	Collect 'like terms' . Be careful with negatives. x^2 and x are not like terms.	$2x + 3y + 4x - 5y + 3$ $= 6x - 2y + 3$ $3x + 4 - x^2 + 2x - 1 = 5x - x^2 + 3$
5. x times x	The answer is x^2 not $2x$.	Squaring is multiplying by itself, not by 2.
6. $p \times p \times p$	The answer is p^3 not $3p$	If $p=2$, then $p^3=2 \times 2 \times 2=8$, not $2 \times 3=6$
7. $p + p + p$	The answer is $3p$ not p^3	If $p=2$, then $2+2+2=6$, not $2^3 = 8$
8. Substitution	Replace letters with numbers. Be careful of $5x^2$. You need to square first, then multiply by 5.	$a = 3, b = 2$ and $c = 5$. Find: 1. $2a = 2 \times 3 = 6$ 2. $3a - 2b = 3 \times 3 - 2 \times 2 = 5$ 3. $7b^2 - 5 = 7 \times 2^2 - 5 = 23$
9. Expand	To expand a bracket, multiply each term in the bracket by the expression outside the bracket.	$3(m + 7) = 3m + 21$
10. Function Machine	Takes an input value, performs some operations and produces an output value.	INPUT $\xrightarrow{\times 3}$ $\xrightarrow{+ 4}$ OUTPUT
11. Evaluate	Work out the answer to	Evaluate 2^3 $2 \times 2 \times 2 = 8$

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	I am sorry I am late
Je regrette d'arriver en retard	

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	

Classroom Communication Phrases

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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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Je n'aime pas	I don't like	nul	rubbish
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I have long/ medium/curly/straight/blond/brown/black/red hair	

Classroom Communication Phrases

Haben Sie ...?	Do you have ? (formal)
Hast du... ?	Do you have ? (informal)
Darf ich meine Jacke ausziehen ?	Can I take off my blazer ?
Darf ich Wasser trinken ?	Can I have a drink ?
Darf ich einen Kuli ausleihen ?	Can I borrow a pen ?
Ich habe mein (e) (en)vergessen	I have forgotten...
Ich habe kein (e) (en) ...	I do not have...
Wie schreibt man das ?	How do you spell that?
Ich weiß es nicht	I don't know
Ich verstehe nicht	I don't understand
Wie bitte?	Repeat, please ?
Wie heißt auf Englisch/Deutsch ?	How do you say... in English/German ?
Es tut mir leid ! Ich bin spät !	I am sorry I am late

Key verb

HABEN = to have

Ich habe	I have
Du hast	you have
Er hat	he has
Sie hat	she has

Key verb

SEIN = to be

Ich bin	I am
Du bist	you are
Er ist	he is
Sie ist	she is

Key verb

WOHNEN = to live

Ich wohne	I live
Du wohnst	you live
Er wohnt	he lives
Sie wohnt	she lives
Wo wohnst du ?	Where do you live ?

Pronunciation Tips

<u>Letters</u>	<u>Sound</u>
ei	eye
ie	ee
v	f
w	v

Opinions

Ich mag + noun	I like
Ich mag nicht + noun	I don't like
Magst du.... + noun ?	Do you like.. ?
Meine Lieblingsfarbe ist..	My favourite colour is...
Was ist deine Lieblingsfarbe ?	What is your favourite colour ?

Hallo! *Meeting and greeting*

Wie heißt du?	What's your name?
Ich heiße Und du?	My name's What about you?
Hallo!	Hi!
Guten Tag!	Hello!
Tschüs!	Bye!
Auf Wiedersehen!	Goodbye!
Wie geht's?	How are you?
Gut, danke. Und dir?	Fine, thanks. And you?
Nicht schlecht, danke.	Not bad, thanks.
Nicht so gut.	Not so good.

Länder *Countries*

Wo wohnst du?	Where do you live?
Ich wohne in ...	I live in ...
England.	England.
Schottland.	Scotland.
Wales.	Wales.
Irland.	Ireland.
Nordirland.	Northern Ireland.
Deutschland.	Germany.
Frankreich.	France.
Österreich.	Austria.
der Schweiz.	Switzerland.

Die Farben *Colours*

rot	red	braun	brown
blau	blue	grau	grey
gelb	yellow	weiß	white
grün	green	rosa	pink
schwarz	black		

Wie alt bist du?	How old are you?
Ich bin ... Jahre alt.	I'm ... (years old).
Ich habe am ... Juni Geburtstag.	My birthday's on the ... of June.

Die Monate **The months**

Januar	January
Februar	February
März	March
April	April
Mai	May
Juni	June
Juli	July
August	August
September	September
Oktober	October
November	November
Dezember	December

Geburtstage **Birthdays**

Wann hast du Geburtstag?	When is your Birthday?
Ich habe am ... Juni Geburtstag.	My birthday's on the ... of June.
ersten	<i>first</i>
zweiten	<i>second</i>
dritten	<i>third</i>
vierten	<i>fourth</i>
neunzehnten	<i>nineteenth</i>
zwanzigsten	<i>twentieth</i>
einundzwanzigsten	<i>twenty-first</i>
dreiigsten	<i>thirtieth</i>
einunddreiigsten	<i>thirty-first</i>

Alphabet

a ah	h ha	o oh	v fow
b bay	i eee	p pay	w vey
c tsay	j yacht	q coo	x ix
d day	k car	r air	y oopsilon
e ay	l ell	s ess	z tsett
f eff	m em	t tay	
g gay	n en	u ooh	

Das Alphabet

Wie schreibt man
„Apfel“?
„Apfel“ schreibt man
A-P-F-E-L.

The alphabet

How do you spell 'apple'?
You spell 'apple'
A-P-P-L-E.

Opinions

Ich mag meinen Kuli	I like my pen
Ich mag meine Schultasche	I like my school bag
Ich mag mein Buch	I like my book
Magst du.... + noun ?	Do you like.. ?
Meine Lieblingsmonat ist..	
My favourite month is...	
Was ist deine Lieblingsmonat ?	
What is your favourite month ?	

Schulsachen

Was ist das?	What's that?
Das ist (ein Bleistift).	It's (a pencil).
ein Klebstift	a gluestick
ein Kuli	a pen
ein Taschenrechner	a calculator
eine Schere	a pair of scissors
eine Schultasche	a school bag
ein Buch	a book
ein Etui	a pencil case
ein Heft	an exercise book
ein Lineal	a ruler
ein Wrterbuch	a dictionary
Hast du ... ?	Have you got ... ?
Ich habe ...	I've got ...
einen Kuli.	a pen.
eine Schere.	a pair of scissors.
ein Lineal.	a ruler.
Ja.	Yes.
Nein.	No.

How do I learn my German words ?

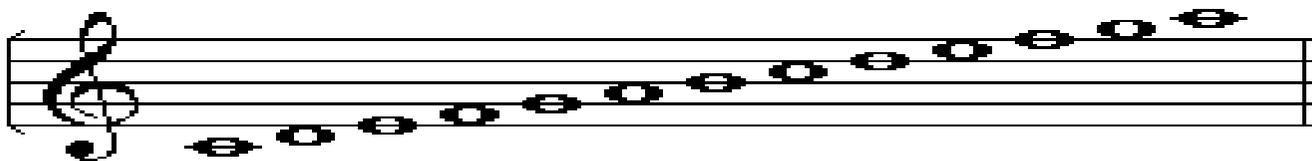
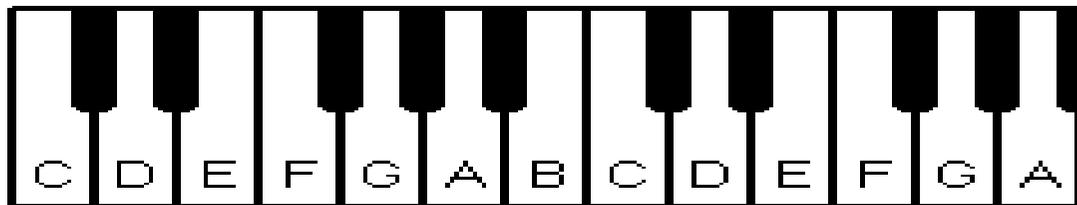
Look

Cover

Write

Check

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	Harp
Double Bass	Cor Anglais	Tuba	Castanets	Organ
Harp	Clarinet		Side Drum	Synthesiser
	Bassoon		Xylophone	

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

Baroque (1600-1750)

Classical (1750-1820)

Romantic (1820-1899)

Bach Handel	Mozart Haydn Beethoven	Tchaikovsky Chopin Liszt
<ul style="list-style-type: none"> Harp Small ensembles Mainly string Vocal Music Continuo bass part (string & keyboard) Mainly polyphonic Limited dynamics 	<ul style="list-style-type: none"> Piano Mainly string orchestra with some wind and brass More use of dynamics 4 bar phrases 	<ul style="list-style-type: none"> Larger orchestra Lots of wind and brass More extreme dynamics Chromatic chords Use of Rubato (playing freely)



Unit 2: Smoking

Year 7

Skills

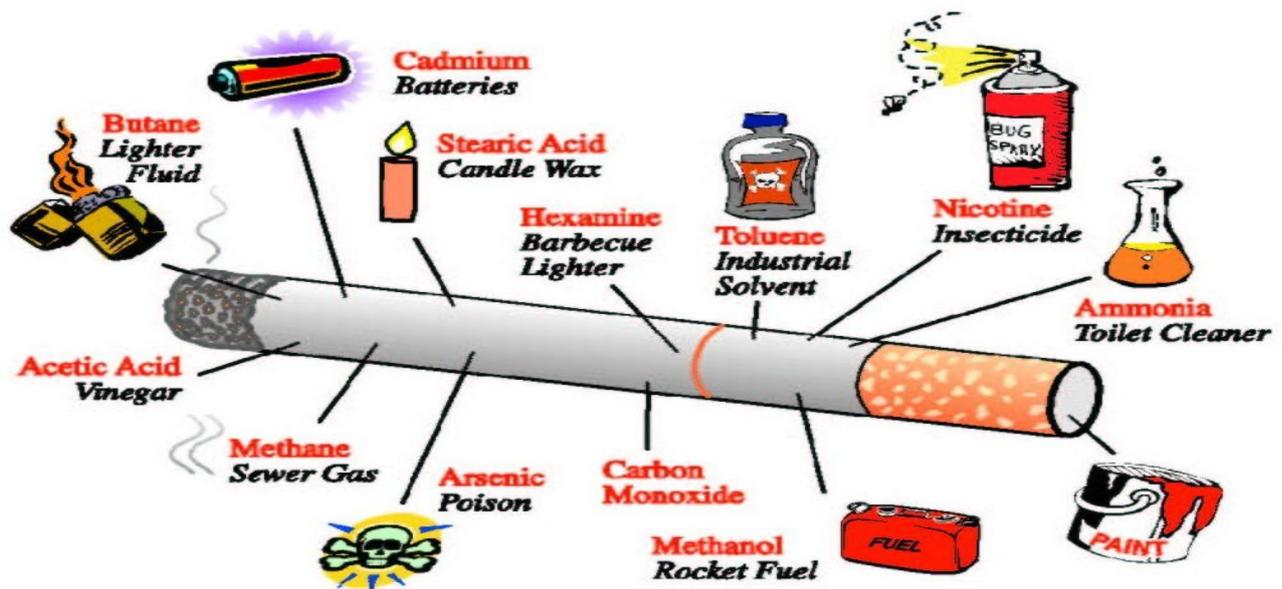
- Engage with and reflect on different ideas, opinions and beliefs to help develop personal opinion.
- Express and explain opinions through discussion and written assessments.
- Reflect on the knowledge and skills needed for setting realistic targets and personal goals.
- Work individually and with others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



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.





Y7: REP

68% of the world's 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 religion's 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.

Laboratory Rules

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 as 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.



Explosive



Flammable



Corrosive



Hazardous to the environment



Caution – harmful or irritant



Toxic



Radioactive material



Health Hazard



Gas under Pressure



Oxidising



Risk of Electric shock

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

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

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.

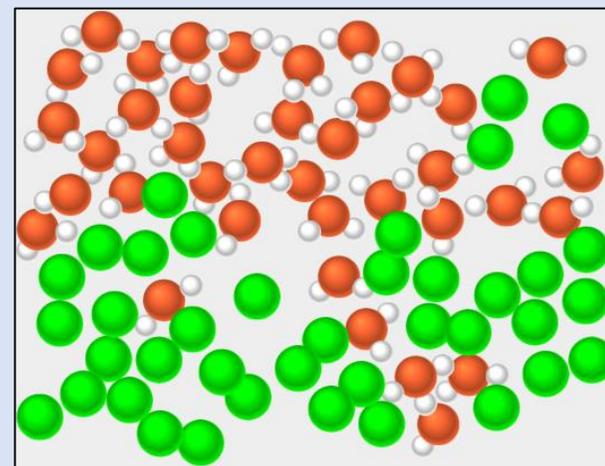
Dissolving

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

We call the liquid the **SOLVENT**

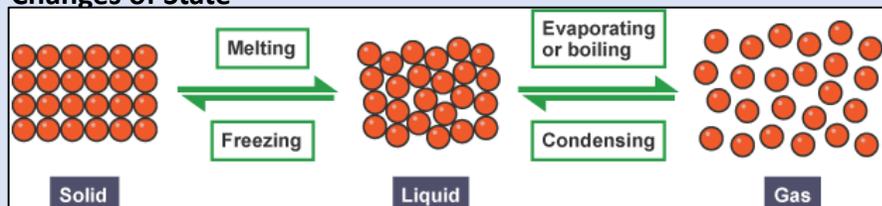


We call the solid the **SOLUTE**



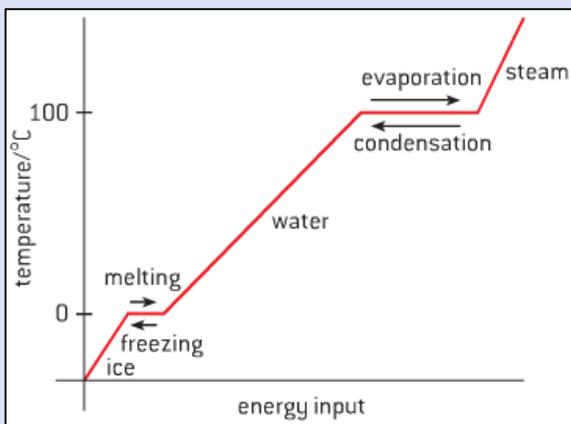
The particles should be the same in all 3 diagrams.

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)



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.

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**.

Separation Techniques

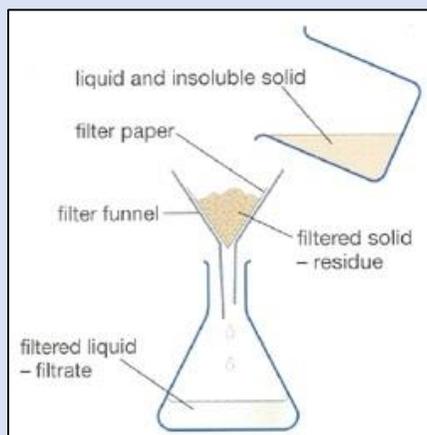
Drinking Water:

Reservoir → Sedimentation → Filtration → Chlorination → Drinking water

Filtration

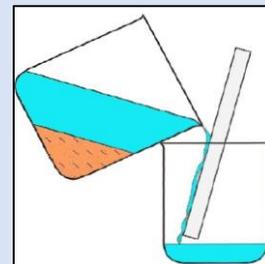
Separates an insoluble solid from a liquid.

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



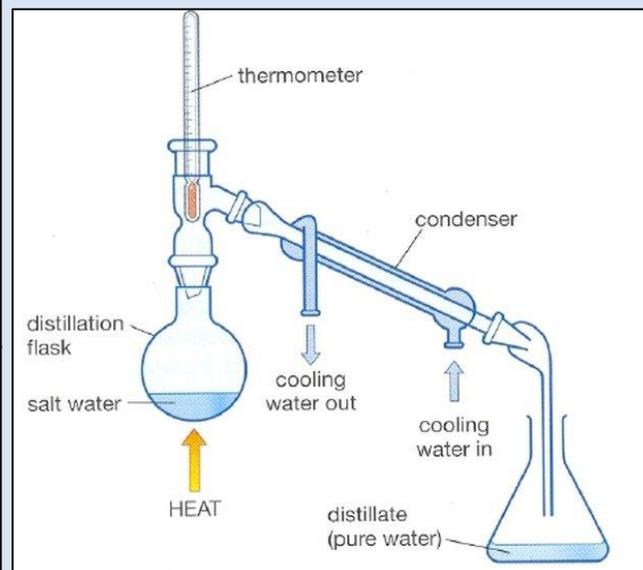
Decanting

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

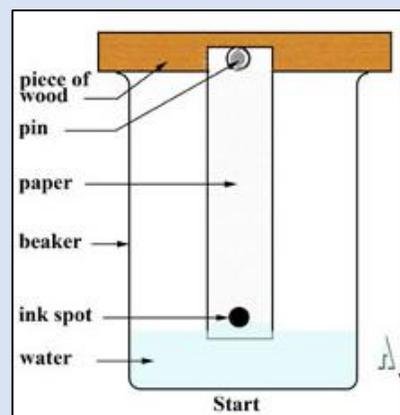
Draw pencil line.

Put dot of colour on line.

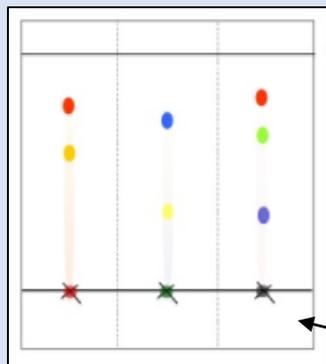
Hang bottom edge (below dot) in the water.

Leave until water soak up to almost the top of the paper.

Compare with known substances.



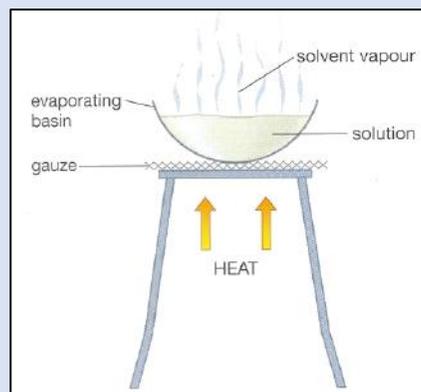
Different colours contain different mixtures of inks.
The different inks move at different speeds up the paper.
This is because of different solubility.



Chromatogram

Evaporation

Separating a soluble solid from a liquid.



Crystallisation

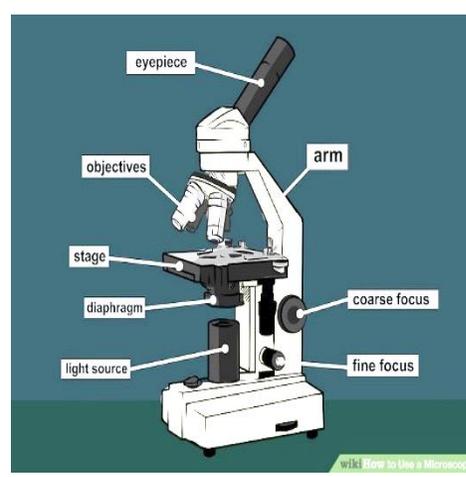
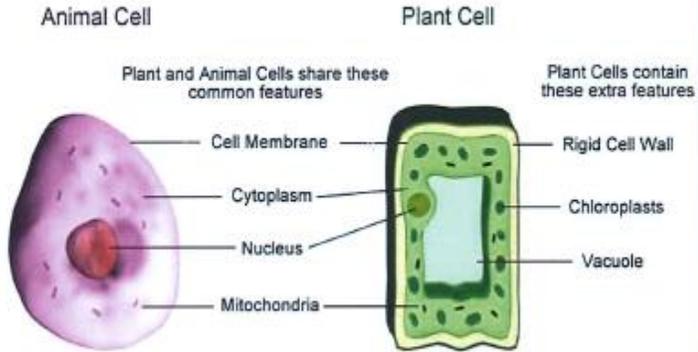
Heat until almost all the water has evaporated.

Leave for the remaining water to evaporate slowly to form crystals.

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

Cells

Cells are the building blocks of all living organisms



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
Eye piece 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:

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

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

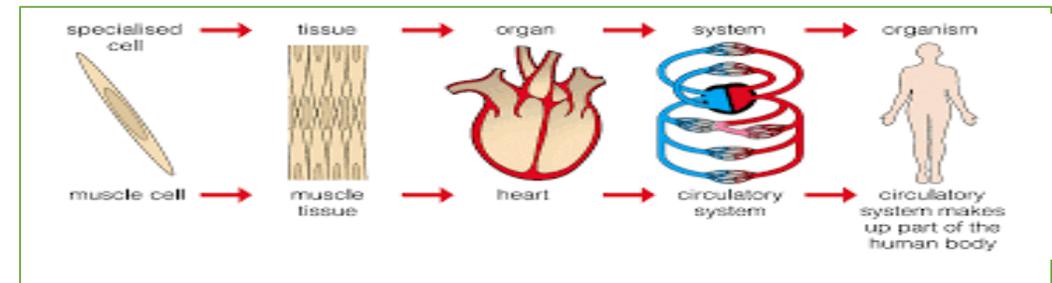
Specialised cells

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	<ul style="list-style-type: none"> • Large surface area, for oxygen to pass through • Contains haemoglobin, which joins with oxygen • Contains no nucleus
Nerve cells	To carry nerve impulses to different parts of the body	<ul style="list-style-type: none"> • Long • Connections at each end • Can carry electrical signals
Male reproductive cell (sperm cell)	To reach female cell, and join with it	<ul style="list-style-type: none"> • Long tail for swimming • Head for getting into the female cell
Plant cells		
Root hair cell	To absorb water and minerals	<ul style="list-style-type: none"> • Large surface area
Leaf cell	To absorb sunlight for photosynthesis	<ul style="list-style-type: none"> • Large surface area • Lots of chloroplasts

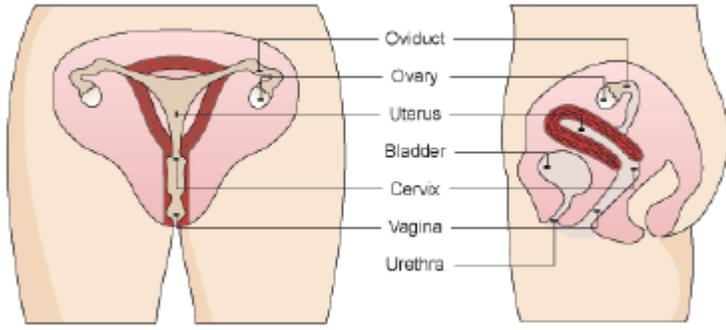
Part of the Cell	What Does it Do
Nucleus	Controls the activities of the cell/ Stores DNA
Cell Membrane	Controls movement into and out of the cell
Mitochondria	Where respiration takes place
Cytoplasm	jelly like substance where chemical reactions happen
Ribosome	makes proteins for the cell
Chloroplast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

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



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

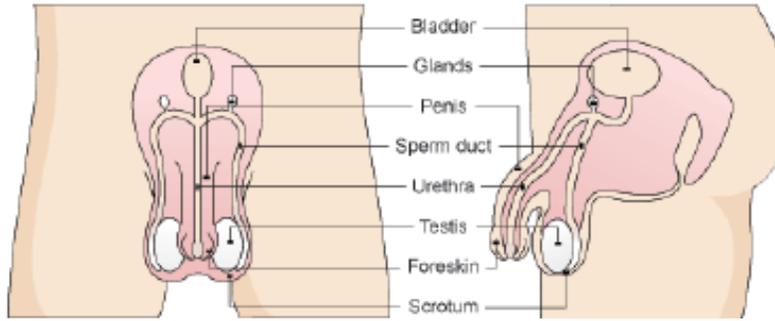
Female reproductive system



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.

Male reproductive system



Functions of male reproductive organs

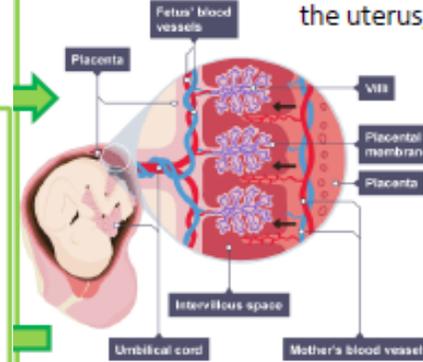
Structure	Function
Testes	To produce gametes (sex cells) called sperm. Also makes male sex hormones.
Penis	Passes urine and semen out of the man's body.
Urethra	Tube inside the penis which carries urine and semen.
Sperm Duct	Sperm passes through these and mix with fluids produced by the glands, creating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

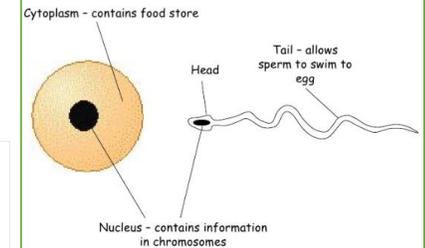
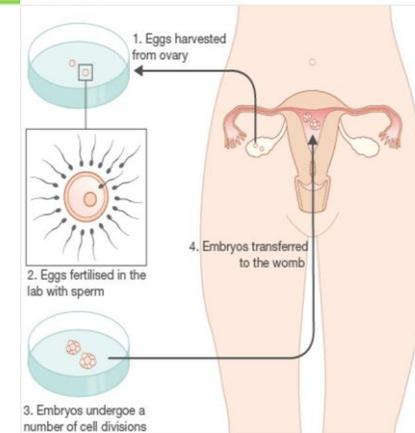
It takes approximately 40 weeks for a baby (foetus) to develop in the uterus, this time is known as gestation.



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.

IVF

IVF Treatment



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



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.

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)



7P1 Energy Knowledge Organiser

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

$$\text{Gravitational Energy} = \text{mass} \times g \times \text{height}$$

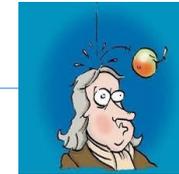
Gravitational energy practical: Investigate which ball is the most efficient at bouncing

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 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



Energy Resources

(non-renewable):

Coal, Oil, Gas
Nuclear

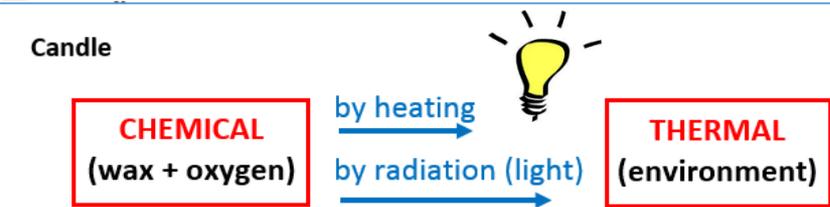
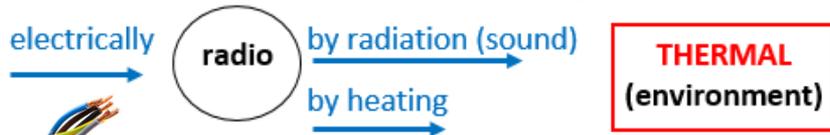


(Fossil fuels contribute to global warming and are running out)

Energy Resources

(renewable):

Solar
Wind
Hydroelectric
Wave
Tidal
Geothermal
Biomass



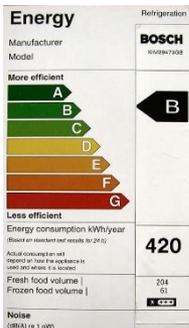
Energy efficiency:

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