UNA
LABORANTES

KINGS'

SCHOOL · WINCHESTER

Knowledge Organiser 2022-23

Year 7 | Autumn term

NAME: TUTOR:


INSPIRING FUTURES • ACADEMIC EXCELLENCE • EXCEPTIONAL CHARACTER •

KINGS'

SCHOOL · WINCHESTER

How to use your knowledge organiser

You are given a Knowledge Organiser at the beginning of the term. You are responsible for it and need to take care of it. Please do not lose it, or doodle on it. We will ask you to replace any lost/defaced Knowledge Organisers, as they are a tool that you and your teachers will use in lessons and for homework.

Your teachers have created Knowledge Organisers to support each unit of learning across Key Stage 3. These are then compiled into a booklet for you. Knowledge Organisers are a simple tool that provides the foundational knowledge required for each particular unit across each subject. These are called your **Knowledge Base**. They are not the whole curriculum – you will be taught much more than this, but they do outline the basic knowledge that every pupil should know.

Your teachers will tell you how often you will need to learn from your knowledge organiser when it is set as homework. Working with a knowledge organiser every day helps to establish routines in home learning, developing a confident use of vocabulary and independent study skills. You will be tested on the information that you have learned from the knowledge organisers in your lessons. There are many effective ways of learning from a Knowledge Organiser. One way that your teachers may use is called: Look, Cover, Write, Check. Please do not be tempted to just copy from the Knowledge Organiser - studies have shown that this is not effective.

Subjects have also added other information for you – this is indicated in a section called a **Knowledge Builder**. This may be extension tasks, or further study that may interest you.

Please see these videos for more information on what Knowledge Organisers are, and how to use them:

Full Video

Look, Cover, Write, Check

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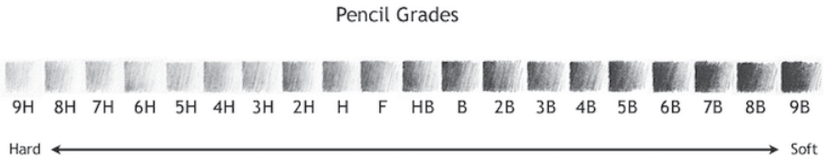
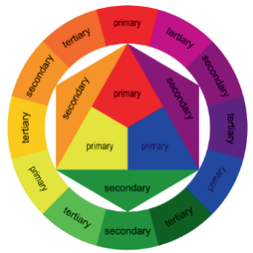


2. Shape and form		
2.1	two dimensional/shape	An image that has length and width – it is flat.
2.2	three dimensional/form	An image that has height, width and depth.
2.3	cone	A 3D shape with a circular base that narrows to a point.
2.4	cube	A 3D box.
2.5	sphere	A 3D Circle - a ball.
2.6	cylinder	A 3D tube.
2.7	ellipse	A circle shape in perspective.

3. Tone - how light or dark something is		
3.1	highlights	The lightest area of an object or image.
3.2	shadows	A dark area where light is blocked.
3.4	blending	A gradual transition between a colour or tone.
3.5	gradation	A visual technique of gradually transitioning from one shade to another.
3.6	shading	Use of tone to create form and shadow.



4. Visual elements		
4.1	line	A continual mark that joins two points together.
4.2	tone	How light or dark something is.
4.3	texture	How something feels or looks like it feels.
4.4	colour	A reaction in our eye to the light reflected.
4.5	pattern	Made from a repeated shape or motif.
4.6	shape	A 2-dimensional area with height and width.
4.7	form	A 3-dimensional object with height, width, depth.

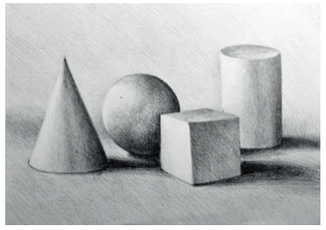
5. Colour theory		
5.1	primary colours	Red, yellow, blue.
5.2	secondary colours	Orange, green, purple.
5.3	tertiary colours	When you mix a primary and secondary colour.
5.4	complementary colours	Colours that are opposite each other on the colour wheel.
5.5	analogous colours	Colours that are next to each other on the colour wheel and that blend well together.
5.6	hot/warm colours	Reds, oranges, yellows.
5.7	cold/cool colours	Blues, greens, purples.
5.8	colour wheel	A circle with different coloured sectors used to show the relationship between colours.

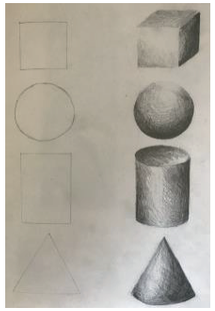
6. Painting		
6.2	paint proportions	Quantity of paint to create the correct colour.
6.3	paint application	How the paint is applied.
6.4	tint	The variation of a colour by adding white to it.
6.5	shade	The variation of a colour by adding black to it.
6.6	tone	The variation of a colour by adding grey to it.

7. Classroom vocabulary		
7.1	depth	The perceived distance between the background and foreground.
7.2	smooth	An even texture achieved with drawing or painting.
7.3	accuracy	Being correct or exact.
7.4	detail	A distinctive feature of an object or image.
7.5	precision	The quality of being sharp or accurate.

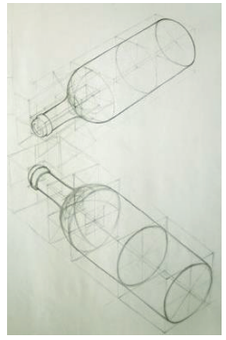
Watch how to create and blend different tones with a drawing pencil.

Watch how to use tone to create forms.

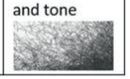




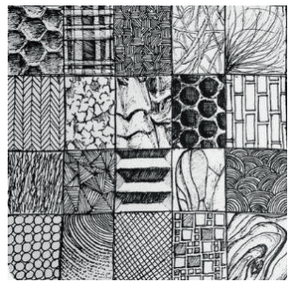
Observational drawing



Visual elements

Line and tone 	Colour, shape and pattern 	Form and tone 
Texture and colour 		
		Texture, line and tone 

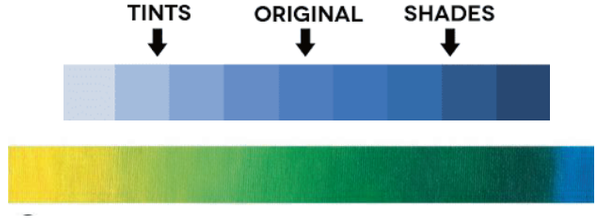
Textures



Patterns

Watch how to paint the colour wheel.

Mixing paint to create tints and shades of a colour.
Add white to create tints, black to create shades.



Blending from yellow through greens to blue.

Skill extension tasks

1. The Basics – Using computers effectively at Kings'		
1.1	password	Creating a strong and memorable password to access the schools' network: 8 characters must include numbers and capitals.
1.2	RM Unify	Accessing and managing cloud-based systems: https://kings-winchester.rmunify.com/sso .
1.3	OneDrive	Let's you keep files that you create and store on your computer in sync with the cloud, therefore accessing your work from home.
1.4	folders	Setting up an appropriate file structure.

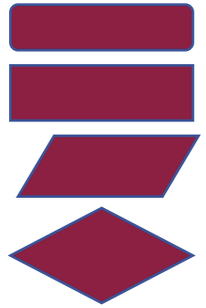
2. How computers work		
2.1	What is a computer?	A computer is a programmable machine.
2.2	Computer system	All the different parts of a computer, including the devices you plug into it.
2.3	Input – Process - Output	Takes in data, processes it and then outputs the result.
2.4	What's inside a computer?	Components of a computer: motherboard, CPU, graphics card, RAM, network interface card.
2.5	Hardware / Software	The physical parts of the computer.
2.6	Software	The program that we run on our computer system.

3. Computational thinking		
3.1	computational thinking	In education, computational thinking is a set of problem-solving methods that involve expressing problems and their solutions in ways that a computer could also execute.
3.2	Boolean operators	AND / OR / NOT
3.3	logic deduction	Deduction is the process of working out if something is TRUE or FALSE.
3.4	AND gate	An AND gate requires both inputs to be 4 switch on.
3.5	OR gate	An OR gate needs just one switch to be on.
3.6	NOT gate	A NOT gate will change the input into the opposite.
3.7	repeat	A repeat structure saves writing so many instructions.
3.8	compression	Reducing the amount of data needed to store or transmit something.

4. Key Terms		
4.1	logic gates	The building blocks of the digital circuits.
4.2	decompositions	Decomposition involves breaking down a large problem into smaller sub-problems.
4.3	Pseudocode	A simplified programming language, used in program design.
4.4	abstraction	To remove unnecessary information in order to solve a problem.
4.5	algorithm	An algorithm is a set of instructions for solving a problem or completing a task.
4.6	truth table	A mathematical table used to determine if a compound statement is true or false.
4.7	lossy	Means that some of the original data will be lost.
4.8	lossless	Means that none of the original data will be lost.
4.9	flowcharts	A diagram of the sequence of movements.

1. Key Terms		
1.1	control system	A control system is a system where we want to control the output of devices. We can do this in a variety of different ways including the use of sensors.
1.2	Flowol	Flowol is a software app that allows students to learn how to control devices by creating flowcharts.
1.3	sequence	A particular order in which related things follow each other.
1.4	process	A process is another name for a set of tasks or steps to be carried out in the correct sequence.
1.5	decision	When you ask a question and the answer is either YES or NO, then you are making a decision about which path to follow in a flowchart.
1.6	input and output	Control systems may require information to come into the system (a reading from a sensor) or to go out (to start a machine).
1.7	subroutine (subprogram)	A subroutine is a smaller process used by a larger process. When the smaller process has finished, the larger process that used it continues from where it left off.
1.8	sensor	A sensor is a device that records changes in data. A light diode detects changes in how bright the light is outdoors. Data from sensors is used elsewhere in the systems.

Flowchart Basics:



Start / Stop

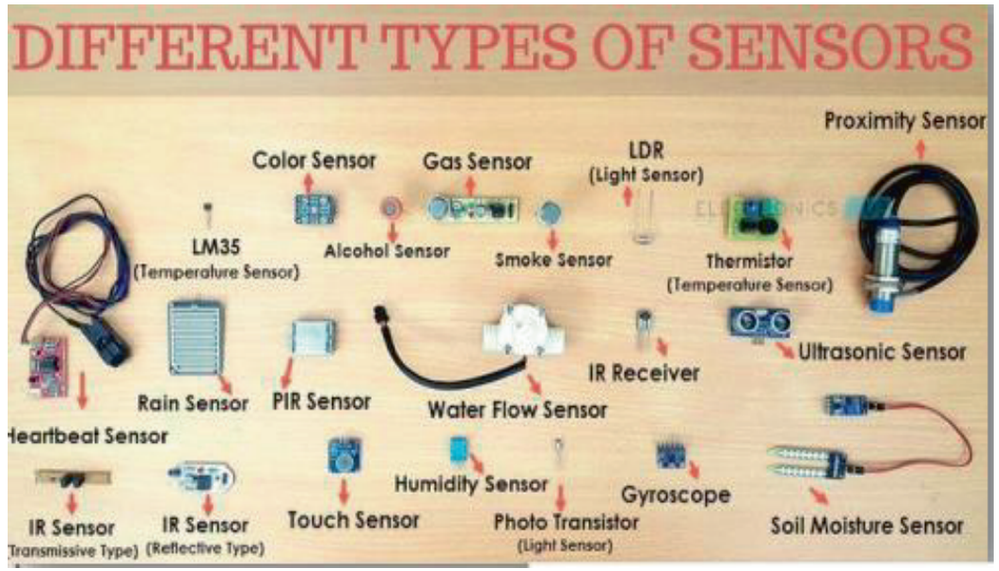
Process

Input / Output

Decision

Using variables in Flowol

- A variable can be initialised with a starting value
- The value of a variable can be increased or decreased in a computer program
- The value of a variable can be checked in a computer program and used to make decisions



1.9	actuator	An actuator is a part of a machine that controls another device. An actuator and a sensor may be part of the same machine.
1.10	variable	A variable is a name given to data in your flowchart that you may want to change. You can use maths operators on variables: add (+), subtract (-), multiply (x), divide (/) to change data.

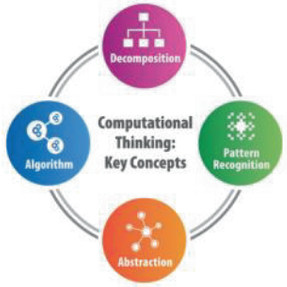
Managing information on a computer, BBC Bitesize

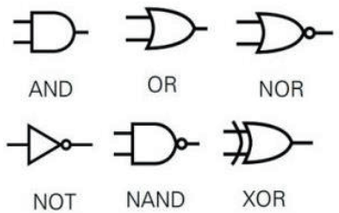
Computer and technology based news and developments, BBC Click

Computational thinking – learn to code Online coding tutorials, Code.org

Stretch your vocabulary		
a.1	Binary	Binary is a number system that only uses two digits: 1 and 0. All information that is processed by a computer is in the form of a sequence of 1s and 0s
a.2	Hexadecimal	The hexadecimal numeral system, often shortened to "hex", is a numeral system made up of 16 symbols (base 16))
a.3	ASCII Code	ASCII is a 7-bit code, meaning that 128 characters (27) are defined
a.4	Moore's Law	The observation that the number of transistors in an integrated circuit doubles about every two years.

Stretch your vocabulary		
b.1	loop	A sequence of instruction s that is continually repeated until a certain condition is reached.
b.2	interface	A programming structure/syntax that allows the computer to enforce certain properties on an object (class).
b.3	hardware	The physical components of the computer, such as the central processing unit (CPU , hard disk, monitor, keyboard and mouse.
b.4	default	A predesigned value or setting that is used by a computer program when a value or setting is not specified by the program user.





Basic Logic Gates

Flowol 4 PDF

You Tube Video - Flowol Tutorial

Online tutorial – control systems

Future careers in computer control

Article on the significance of a flowchart

BBC bitesize - flowcharts

At home challenge	
1	Think of one room in your house (maybe your bedroom) where it would be great if a machine or machines did something for you? Can you think of a futuristic example of a control system like this? Draw your room with a new control system. Explain what your control system does and how it might work. Can you think of any examples of sensors and /or actuators that you control system might use?

1. PERFORM VERY SUCCESSFULLY			
Physical	1.1	gesture	A defined movement which clearly communicates meaning.
	1.2	eye contact	When two people look directly into one another's eyes, or at a fixed position.
	1.3	posture	Is the position of a person's body when standing or sitting.
Vocal	1.4	expression	Conveys an emotion that tells us about the character and the way they react to the situation.
	1.5	emphasis	Stress on a particular word or phrase within a sentence to indicate importance or change meaning.
	1.6	projection	The strength of speaking whereby the voice is used loudly and clearly.
Space	1.7	levels	Can be used to suggest different locations, status and authority one character has over another.
	1.8	proxemics	The way space/distance between characters on stage is used to represent the relationship between them.
	1.9	stage presence	Is the energy, or charisma and appeal, that an artist has whilst performing

2. UNIT KEY VOCABULARY			
1.10	T2	comedy	Entertainment designed to make an audience laugh.
1.11	T2	tragedy	Drama based on human suffering, where a terrible fate befalls a character.
1.12	T2	chorus	A group of actors who describe and comment upon the main action of a play with a collective voice.
1.13	T2	prologue	The opening to a story that establishes the context and gives background details.
1.14	T3	exodus	The final scene of a Greek play, often linking back to the prologue and explaining the moral.
1.15	T3	amphitheatre	An open-air circular or oval performance space with tiered seating for the audience.

3. DRAMA KEY VOCABULARY			
1.16	T2	narration	Providing the audience with background information or commentary on the action of the play.
1.17	T2	choral speaking/ movement	A group of people speaking/moving together or sharing a speech.

Watch the animated video that explains Greek Theatre to you, covering all of the information we will cover throughout the unit.

Read, cover, check the spelling of amphitheatre

1.20	Oedipus	• Written by Sophocles • Genre - tragedy • Themes – fate, shame, truth	1.21	Lysistrata	• Written by Aristophanes • Genre – Comedy • Themes – power, gender, politics	1.22		• Written by Sophocles • Genre – tragedy • Themes – fate, power, femininity

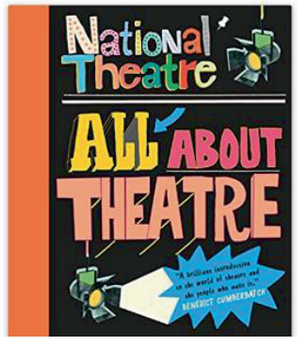
1. UNIT KEY VOCABULARY			
1.1	T2	comedy	Entertainment designed to make an audience laugh.
1.2	T2	exaggeration	When an actor over emphasises a movement/s, line/s or action/s to emphasise or entertain for dramatic effect.
1.3	T2	ensemble	A group of actors who perform together, demonstrating individual characters.
1.4	T2	catchphrase	A well-known sentence or phrase.
1.5	T3	audience	A group of spectators gathered to watch and listen to an event such as a play, concert, film or meeting.
1.6	T3	fourth wall	An invisible wall that separates the performers on stage from the audience.

2. DRAMA KEY VOCABULARY			
1.7	T2	stock characters	Templates of characters which can be seen in many different shows e.g. dame, faithful sidekick.
1.8	T3	audience participation	When an actor/s speak directly to the audience and encourage them to boo, cheer and otherwise engage with the action on stage.
1.9	T2	direct address	Speaking directly to the audience.
1.10	T2	slapstick comedy	Physical, exaggerated comedy movements/fights/routines to entertain the audience.

Read, cover, check the spelling of pantomime

Watch this video that explains a brief history of Pantomime Theatre, covering some of the information we will learn throughout the unit.

Books to read:



National Theatre: All about theatre

Proxemics = How close or far away characters are from each other on stage

Proxemics and status are used very closely together in the pantomime genre to help to inform audience members of the relationships between the characters.

For example; the evil step sisters in 'Cinderella' would be stood close together to show their close relationship, and far away from Cinderella to show that those characters didn't get on.

Further key vocabulary check	
clocking	When an actor makes direct eye contact/interacts with the audience to emphasise/include them in a comic moment.
role play	To perform a character, different from ourselves, in a way that our audience believe they are real.
timing	The moment when an actor chooses to pause, clock the audience, or deliver their line/movement for optimum effect.

3. UNIT CONTEXT					
1.11	Commedia Dell'arte	• Started in 16th Century Italy • Influenced Pantomime stock characters	1.12	Melodrama	• Exaggerated conflicts within a piece of drama, emphasised by the use of music, song and dance

Characters		
1.1	Arthur Pendragon	Legendary British King who led the defence of Britain.
1.2	Bercelet	Arthur's dog
1.3	Merlin	A powerful warlock, keeps his magical powers hidden as it is banned in Camelot.
1.4	Lancelot	King Arthur's close companion and one of the greatest Knights of the Round Table.
1.5	Guinevere	The wife of King Arthur.
1.6	Gawain	King Arthur's nephew and a Knight of the Round Table.
1.7	The Green Knight	A Knight who challenges anyone to cut off his head with a sword.

Vocabulary		
2.1	hibernate	When an animal spends the winter in an inactive state.
2.2	triumphant	Having won a battle or contest.
2.3	tournament	A competition involving at least three competitors.
2.4	feast	A large meal, typically a celebratory one.
2.5	gallop	The fastest pace of a horse.
2.6	courteous	Being polite and respectful.

Techniques		
3.1	noun	The name of a person, place or thing e.g. Arthur
3.2	verb	Words that show an action e.g. told
3.3	adjective	A descriptive word e.g green
3.4	adverb	A word that describes a verb e.g. slowly

Features of legends		
5.1	legend	An old story that is widely believed but cannot be proved to be true.
5.2	magic	Having supernatural powers
5.3	mythical creatures	Supernatural animals/beings. e.g. a dragon
5.4	damsels in distress	A young woman in danger
5.5	quests	A journey toward a specific mission or a goal
5.6	chivalry	Very polite, honest, and kind behaviour, especially men towards women.

Context		
4.1	Camelot	Camelot is a castle and court associated with the legendary King Arthur.
4.2	Excalibur	The legendary sword of King Arthur, believed to have magical powers.
4.3	The Round Table	King Arthur's table in the Arthurian legend, around which he and his knights sit.
4.4	The Scilly Isles	A group of islands off the coast of Cornwall.
4.5	Saxons	A group of people from Germany who settled in Britain.

Poems & Poets		
1.1	The Walrus & the Carpenter	A light-hearted, rhythm-based poem.
1.2	Dinnertime Chorus by Sharon Hendrick	A poem full of personification based on dinnertime.
1.3	The Lady of Shalott by Alfred lord Tennyson	A heavily descriptive poem with focus on nature.
1.4	A Boy Named Sue by Johnny Cash	A comedic country song in first person narrative.
1.5	In the Ghetto by Elvis Presley	A sombre song about life in an American ghetto (2.4).
1.6	The Gambler by Kenny Rogers	A song comparing the art of gambling to living a successful life, using extended metaphor.
1.7	One Day by Amy Ludwig VanDerwater	A poem reflecting on a personal childhood memory.
1.8	Nettles by Vernon Scannell	A poem combining the techniques covered this term.

Vocabulary		
2.1	narrative	A spoken or written story. Can take many forms.
2.2	chorus	A large, organised group of singers or a section of a song that is repeated.
2.3	ballad	A narrative written to be performed aloud (orally) - particularly popular before books and texts were widely available.
2.4	ghetto	A poor area of a city, often with a high number of minority residents.
2.5	lyric	The words to a popular song or a type of poem full of emotions.
2.6	anecdote	A short story within a text or speech about a real incident of person. Often used for amusement but sometimes for serious impact.

Techniques		
3.1	simile	The comparison of one person or thing to another, using like or as. Used in description.
3.2	metaphor	The comparison of one person or thing to another, using is/was/were. Sometimes 'stronger' than a simile.
3.3	extended metaphor	Metaphor or group of metaphors that continue throughout a text.
3.4	emotive language	When certain word choices are made to evoke an emotional response in the reader.
3.5	personification	Applying human characteristics to non-human things eg; animals, objects, nature

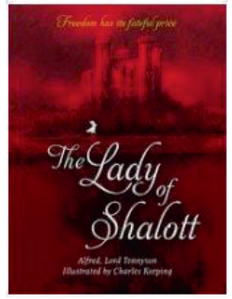
Context		
4.1	origin of narrative poetry	A genre with thousands of years of history. Famous examples include The Odyssey by Homer and Chaucer's Canterbury Tales.
4.2	Shalott	A fictional Island close to the famous kingdom of Camelot. The 'Lady' lives in a castle on the island.
4.3	Country music (Cash, Presley, Rogers)	Genre of music popular in the southern states of the USA. Songs often follow a descriptive narrative and focus on the lives of characters.
4.4	poker (The Gambler)	Card game where players must make good decisions and attempt to keep their feelings hidden so they don't give anything away.
4.5	Vernon Scannell (writer of 'Nettles')	A soldier during World War 2. His poetry often reflected his experiences at war. He believed that war never left a person's memory.

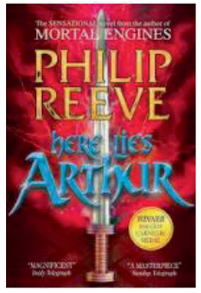
Themes		
5.1	comedy	Light-hearted, created for humour and to make people laugh.
5.2	emotion & feeling	Strong feelings, whether positive or negative, often make for interesting narratives. This can include love, hate, sadness, joy, regret and more.
5.3	love & romance	In narrative poems and songs, love rarely runs smoothly.
5.4	memories	Many narratives look back on important, defining moments from somebody's past.
5.5	family and relationships	Narrative poems and songs often explore the complex relationships between family, friends or partners.

Knowledge Builder: English
Arthur and The Knights of the Round Table

Learn about King Arthur:

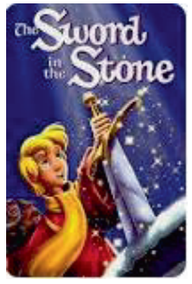
Books to read:





Learn about the origins of Merlin:

Films to watch:

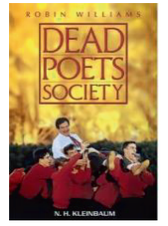


Stretch your vocabulary		
1	soothsayer	A person supposed to be able to foresee the future.
2	deerhound	A large breed of dog, once bred to hunt the red deer.
3	harp	A stringed musical instrument.
4	sorcery	the use of magic for negative reasons.
5	camomile	A herb with healing qualities.
6	maudlin	Self-pitying and emotional

Knowledge Builder: English
Narrative Poetry

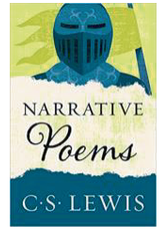
What makes a poem...a poem? Short TED presentation:

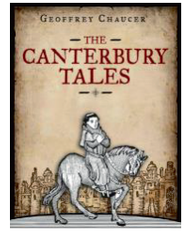
Films to watch:



Books to read:

The Lady of Shalott – full version and short film:



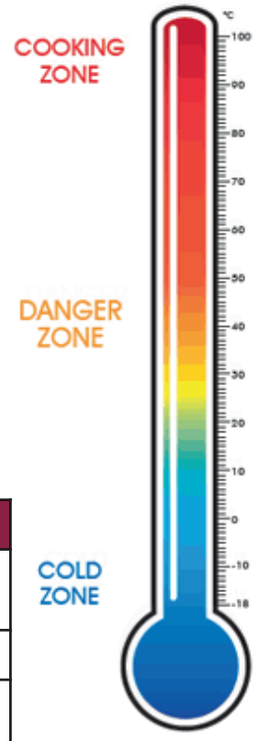


Stretch your vocabulary		
1	linear narrative	A story that is structured in a chronological order.
2	cyclical narrative	A story that begins and ends with the same idea.
3	troupe	A group of dancers, actors, or other entertainers who tour to different venues.
4	perspective	A particular attitude towards or way of regarding something; a point of view.
5	purpose	The reason something (a poem) is created. Intended impact and effect.
6	pathetic fallacy	Of nature and weather conditions to develop or establish a mood or tone, eg; dark, rainy night.
7	allegory	A story or poem in which the characters symbolise a wider meaning or purpose. Poetic example – The Pilgrim's Progress by John Bunyan.

1a. Food safety and hygiene – 4 C's		
1a.1	cleaning	Wash hands and clean work surfaces and equipment before cooking to kill harmful bacteria.
1a.2	cooking	Cooking kills harmful bacteria. At 75°C kills most bacteria is killed.
1a.3	chilling	Chilling below 5°C slows down bacteria multiplying. Store in fridge (0-5°C) or freezer (0--18°C).
1a.4	cross-contamination	Bacteria is spread from one surface to another.

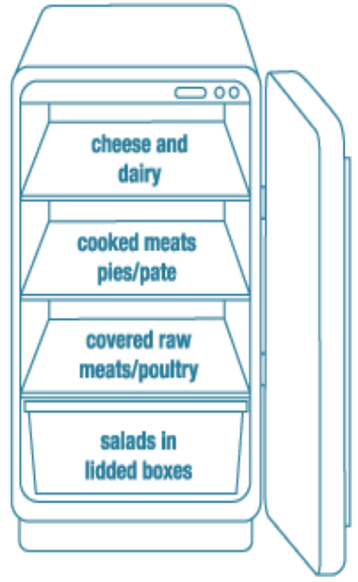
2. Allergies and food intolerances		
2.1	allergic reaction	An immune reaction that the body has to a food or substance. They can be life-threatening.
2.2	allergen	A substance that causes an allergic reaction.
2.3	food intolerance	When the body cannot break down certain foods. It can cause stomach pains, diarrhea and vomiting.

3. Food science		
3.1	enzymic browning	Oxidation reaction that takes place on the surface of fruits and vegetables, causing the food to turn brown.
3.2	raising agent	Something that makes a mixture rise. For example, whisking, baking powder and yeast.
3.3	gluten	The protein in flour that helps make dough elastic, helping it to rise.
3.4	kneading	Movement to stretch the gluten in dough.
3.5	fermentation	The reaction where yeast released carbon dioxide.
3.6	setting	When a mixture turns from liquid to solid.



1b. Food safety and hygiene – key temperatures	
100°C	Water boils
75°C	All bacteria is killed. Cooked food is safe to eat at this temperature.
63°C	Hot holding temperature. Bacteria cannot multiply.
5-63°C	Danger Zone! Bacteria grow rapidly in this range
0-5°C	Fridge temperature. Bacteria grow slowly.
0- -18°C	Freezer temperature. Bacteria are asleep (dormant).

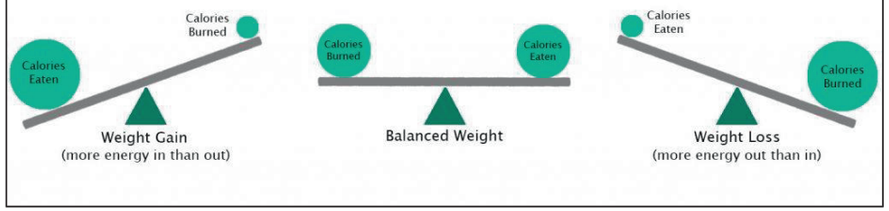
1c. Food safety and hygiene – storage and preparation



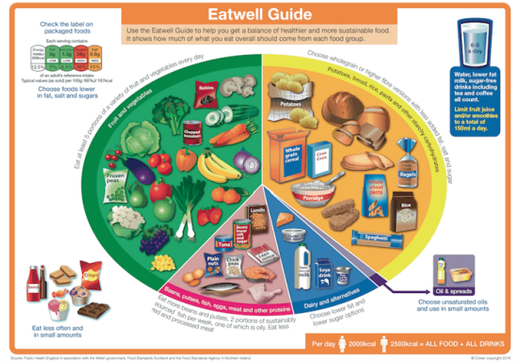
4. Practical skills		
4.1	bridge hold	Form a bridge over the ingredient with your hand and put the knife underneath.
4.2	claw grip	Curl fingers inwards and grip the food with your fingertips, keeping fingers away from the knife.
4.3	simmer	When a liquid stays below boiling point, bubbling gently.
4.4	rub-in	Coating flour grains in fat using fingertips to make breadcrumbs.
4.5	glaze	Liquid is used to form a smooth, shiny coating on food.
4.6	whisk	To beat a mixture to add air and make it light.
4.7	sifting	Passing flour through a sieve to remove lumps and add air.
4.8	knead	To massage and push a dough to stretch and develop the gluten.
4.9	prove	Allowing a bread dough to rise.
4.10	blend	Making a mixture smooth by using a blender.
4.11	reduction sauce	A sauce that uses boiling and simmering to thicken it.

5. Sensory analysis		
5.1	taste	sweet, salty, umami (savoury), bitter, sour
5.2	texture	soft, crunchy, juicy, crumbly, light, thick
5.3	appearance	golden, colourful, rich
5.4	aroma (smell)	cheesy, sweet, aromatic

6a. Nutrition - energy balance



6b. Nutrition - Eatwell Guide



6c. Nutrition - 8 tips for healthier eating

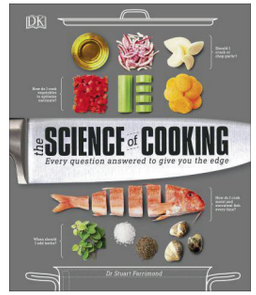
1. Base meals on starchy carbohydrates
2. Eat lots of fruits and vegetables
3. Eat more fish – including a portion of oily fish
4. Cut down on saturated fat and sugar
5. Eat less salt (max. 6g a day for adults)
6. Get active and be a healthy weight
7. Don't get thirsty
8. Don't skip breakfast

6d. Nutrition		
6d.1	macronutrients	Nutrients that we need in large amounts. Fats, carbohydrates and protein.
6d.2	fat	A macronutrient needed to give us energy.
6d.3	protein	A macronutrient needed for growth and repair.
6d.4	carbohydrate	A macronutrient needed to give us energy.
6d.5	micronutrients	Nutrients that we need in small amounts. Vitamins and minerals.
6d.6	fibre	A type of carbohydrate that keeps our gut healthy.
6d.7	water	Helps to keep us hydrated. 6-8 glasses a day required.

Find the Eatwell Guide Knowledge Organiser for more information about healthy eating The Eatwell Guide.

Calculate the energy and nutrients provided by a food diary for one or two days using the calculator above and reflect on the results.

Books and magazines to read:



Programmes to watch:

Food Unwrapped – explores how our favourite foods are made industrially.

Explore The Grain Chain, following the processing of wheat to flour.

Stretch your vocabulary		
a1	coagulation	The setting of protein in the presence of heat and/or acid.
a2	calcium	A mineral that helps to support strong bones and teeth.
a3	iron	A mineral that helps to make red blood cells.
a4	vitamin D	A vitamin that helps to absorb calcium to support strong bones and teeth.
a4	phosphorus	A mineral that helps to support teeth and bones.

1. Bonjour – Basic Greetings	
Salut!	Hi! Bye!
Bonjour!	Good morning!
Au revoir!	Goodbye!
A plus!	See ya!

2. Questions et réponses	Key questions & answers
Ça va?	How are you?
Ça va bien, merci!	Good, thanks!
Ça va très bien, merci!	Very well, thanks
Pas mal, merci!	Not bad, thanks!
Non, ça ne va pas!	No, not good!
Ça s'écrit comment?	How do you spell that?
Ça s'écrit...	You spell it...
Comment t'appelles-tu?	What's your name?
Je m'appelle...	My name is...
Quel âge as-tu?	How old are you?
J'ai....ans.	I am... years old.
C'est quand ton anniversaire?	When is your birthday?
Mon anniversaire, c'est le.....	My birthday is...

3. Les numéros de 1 à 31	Numbers 1-31		
1.	un	17	dix-sept
2	deux	18	dix-huit
3	trois	19	dix-neuf
4	quatre	20	vingt
5	cinq	21	vingt-et-un
6	six	22	vingt-deux
7	sept	23	vingt-trois
8	huit	24	vingt-quatre
9	neuf	25	vingt-cinq
10	dix	26	vingt-six
11	onze	27	vingt-sept
12	douze	28	vingt-huit
13	treize	29	vingt-neuf
14	quatorze	30	trente
15	quinze	31	trente-et-un
16	seize		

4. Les mois	Months
janvier	January
février	February
mars	March
avril	April
mai	May
juin	June
juillet	July
août	August
septembre	September
octobre	October
novembre	November
décembre	December

5. Les jours de la semaine - Days of the week	
lundi	Monday
mardi	Tuesday
mercredi	Wednesday
jeudi	Thursday
vendredi	Friday
samedi	Saturday
dimanche	Sunday

6. En classe	Classroom language
Est-ce que je peux avoir..?	Can I have ...?
un stylo	a pen
un cahier	a book
Comment dit-on ..... en français?	How do you say .... in French?
Comment dit-on ..... en anglais?	How do you say ... in English?
Est-ce que vous pouvez répéter s'il-vous-plait?	Can you repeat, please?

7. Saying what you like and dislike	
J'aime...	I like...
J'adore...	I love....
Je n'aime pas...	I don't like...
Je déteste...	I hate...
Je préfère...	I prefer...
le foot	football
le rugby	rugby
le tennis	tennis
le vélo	cycling
le skate	skating
le judo	judo
les jeux vidéo	video games
la danse	dance
la musique	music
la gymnastique	gymnastics

8. Giving opinions	
C'est super.	Great.
C'est intéressant.	It's interesting.
C'est nul.	It's rubbish.
C'est ennuyeux.	It's boring.

1. Talking about animals	
Tu as un animal?	Do you have a pet?
J'ai…	I have…
un chat	a cat
un cheval	a horse
un chien	a dog
un cochon d'Inde	a Guinea pig
un hamster	a hamster
un lapin	a rabbit
un oiseau	a bird
un poisson rouge	a goldfish
un serpent	a snake
une souris	a mouse
une tortue	a tortoise
Je n'ai pas d'animal	I haven't got a pet

2. Les couleurs			
blanc	white	rose	pink
jaune	yellow	bleu	blue
orange	orange	vert	green
marron	brown	gris	grey
rouge	red	noir	black

3. Talking about your family	
As-tu des frères et sœurs?	Do you have any brothers and sisters?
J'ai…	I have…
un frère / deux frères	a brother / two brothers
une sœur / deux sœurs	a sister / two sisters
Je n'ai pas de sœur	I haven't got any sisters
Je n'ai pas de frère	I haven't got any brothers
Je suis fils unique	I am an only child (m)
Je suis fille unique	I am an only child (f)
C'est…	It is…
mon père	my dad
ma mère	my mum
mes parents	my parents
mon grand-père	my grandfather
ma grand-mère	my grandmother
mes grands-parents	my grandparents
mon oncle	my uncle
ma tante	my aunt
mon cousin	my cousin (m)
ma cousine	my cousin (f)

4. Saying what you eat and drink	
Qu'est-ce que tu manges…	What do you eat
Qu-est-ce que tu bois…	What do you drink
…pour le petit déjeuner?	for breakfast?
…pour le déjeuner?	for dinner?
Je mange..	I eat…
une tartine	bread and jam
un pain au chocolat	a pain au chocolat
des fruits	fruit
des céréales	cereal
un croissant	a croissant
une glace	an ice-cream
une pizza	a pizza
un sandwich au fromage	a cheese sandwich
un sandwich au jambon	a ham sandwich
Je bois…	I drink…
un thé	tea
un chocolat chaud	hot chocolate
un jus d'orange	orange juice
un café	coffee
un coca	coca cola
une limonade	lemonade

Knowledge Base: French
Je me présente | Year 7 Autumn Term 2

5. Saying where you live	
Où habites-tu?	Where do you live?
J'habite...	I live...
dans un château	in a castle
dans un appartement	in an apartment
dans une maison	in a house
dans une ferme	in a farm
à la campagne	in the country
à la montagne	in the mountains
au bord de la mer	by the sea
dans une ville	in a town
dans un village	in a village
dans la forêt	in the forest

6. Talking about nationalities and countries	
l'Angleterre	England
la France	France
le Pays de Galles	Wales
l'Irlande	Ireland
la Belgique	Belgium
l'Ecosse	Scotland
anglais – anglaise	English
français – française	French
gallois – galloise	Welsh
belge	Belgium
écossais - écossaise	Scottish

1. The verb 'être' (to be)	
Je suis	I am
Tu es	You are
Il est	He is
Elle est	She is

1. The verb 'avoirr' (to have)	
J'ai	I have
Tu as	You have
Il a	He has
Elle a	She has

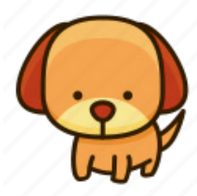
Knowledge Builder: French
Je me présente | Year 7 Autumn Terms 1 & 2

BBC Bitesize: Introduce yourself in French

Languages online: Unité 1

BBC Bitesize: Talking about food in French

BBC Bitesize: Talking about family and pets in French



1. Types of Geography		
1.1	physical	Natural features or events including landforms and features e.g. rivers, coasts, rainforests.
1.2	human	Where and how people live. e.g .population, cities, rural, urban, settlements.
1.3	environmental	Human and physical geography linked together. Including environmental pollution.

4. Understanding geographical cause and effect		
4.1	cause	Something that results in an effect e.g. heavy rain caused flooding.
4.2	effect	A positive or negative change which is a result of a cause. E.g. the effect of an earthquake was damaged buildings.
4.3	environmental	Related to the natural world.
4.4	economic	Related to making money (economy) and jobs (employment).
4.5	social	Related to people's wellbeing.
4.6	climate change	A change in the typical weather for a region over a long period of time. Linked to increased amounts of carbon dioxide from the burning of fossil fuels e.g. oil, gas.
4.7	sustainability	The idea that humans must interact with their environment in a way that ensures there will be enough resources left for future generations.

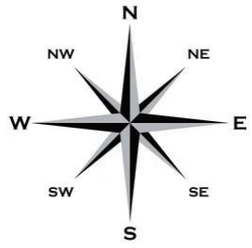
2. Describing places		
2.1	geographical characteristics	Distinguishing features or quality; it is something that makes a place different from others. e.g temperature, vegetation, population size.
2.2	ecosystem	An area where plants, animals, and other organisms, as well as weather and landscapes, work together to form a bubble of life.
	tundra biome	A place where the ground stays frozen for most of the year and there is very little precipitation.
2.3	glacier	A slowly moving mass or river of ice formed by the accumulation and compaction of snow.
2.4	hot desert biome	Also known as arid (meaning dry) deserts, the temperatures are warm and dry year-round.
2.5	precipitation	Water that falls to the earth as hail, mist, rain, sleet, or snow.
2.6	geographical evidence	Facts and figures that provide information about the physical, human and environmental geography.
2.7	climate graphs	These show average monthly rainfall and temperatures typically experienced in a particular location. The temperature is shown on a line graph, and rainfall on a bar graph.

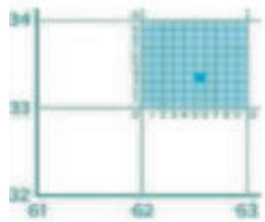
3. Locational information		
3.1	equator	An imaginary line that It runs east and west around Earth's middle. The equator is also called 0° latitude.
3.2	hemisphere	The earth is a sphere. The equator divides the earth - Places north of the equator are in the Northern Hemisphere. Places south of the equator are in the Southern Hemisphere.
3.3	continent	Large solid area of land made up of many countries (Africa, Asia, Europe, North America, South America, Antarctica, Oceania)

1. Using maps		
1.1	What is a map?	Maps are pictures or digital representations of the Earth's surface.
1.2	Who is the Ordnance Survey?	They are Great Britain's national mapping agency - their map are relied on by government, business and individuals.
1.3	What is a map symbol?	Simple images, letters and abbreviations that show us human and physical features on a map.
1.4	key	Every map will have a key to show us what symbols mean and what scale the map is.

2. How do we locate places?		
2.1	equator	The imaginary line that circles the earth at 0° latitude.
2.2	northern hemisphere	The half of the earth above the equator.
2.3	southern hemisphere	The half of the earth below the equator.
2.4	latitude	Imaginary horizontal lines that show how far north or south you are from the Equator (0°).
2.5	longitude	Imaginary vertical lines that show how far east or west a place is from the prime meridian (0°).
2.6	prime meridian	The line which runs through Greenwich in London. The Prime Meridian is 0° longitude.
2.7	continent	Large solid area of land made up of many countries (Africa, Asia, Europe, North America, South America, Antarctica, Oceania).

3. How far, which direction, how high?		
3.1	contour lines	Lines drawn on maps that join places of the same height.
3.2	scale	This is a ratio of the distance on a map to the real world distance. These help us to work out distances on maps.
3.3	spot height	The height above sea level in metres (A black dot with a number next to it on a map).
3.4	compass direction	North, south, east, west. Also NE, NW,SE,SW. Direction is given using compass point e.g. head in a northerly direction. X is to the West of Y.
3.5	relief	The height and shape of the land.





Dark blue square:
4 figure = 62 33
6 figure = 625 333

4. How do I use grid references?		
4.1	grid reference	A position on a map that has been divided into squares. Similar to a coordinate (but without the comma!).
4.2	4 figure grid References	Used to pinpoint a location in a particular square. It is always given for the bottom left hand corner of the square (the South West corner). Read the horizontal line number first, then the vertical number.
4.3	6 figure grid References	These are used to pinpoint a location more accurately within a square. A six figure grid references splits a grid square up into ten sections along the bottom and the side.

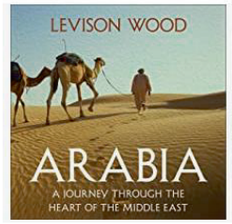
Interested in learning more about Svalbard - head to Britannica

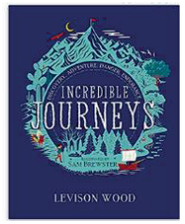
Interested in learning more about Dubai -head to Britannica

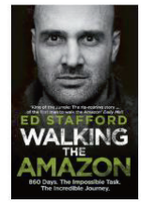
Curious about people and places? Search the library at National Geographic.

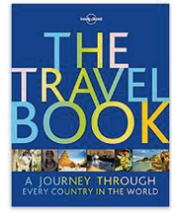
Interested in learning more about the Great Barrier Reef - head to Britannica

Check out these inspirational explorers









Stretch your vocabulary		
v.1	arid	A dry area that gets little rainfall. Arid areas can be hot or cold.
v.2	economics	The study of the economy, or the part of a society that creates wealth. Wealth is not just money. Wealth comes from the production of goods and services, which people buy with money. People who study economics, called economists, look at how people create wealth, how they use it, and how different people get different amounts of it.
v.3	development	Any improvement in the standard of living and quality of life of people in a specific country. Social and economic indicators are used to measure a country's level of development.

Knowledge Builder: Geography Map Skills

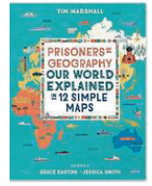
Want to test your map skills? Head over to the Ordnance Survey Map Zone for some games to test your skills.

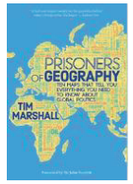
Head over to Google Earth to explore the World.

Here is some interesting reading from National Geographic on maps

Want to know more about digital maps and Geographic Information Systems? Our world knowledge and locational information is built on these! Head over to Esri.

Books to read:





Series to watch:

Stretch your vocabulary		
a.1	cartography	The study of maps
a.2	GIS (Geographical Information System)	A system that creates, manages, analyses, and maps all types of data. GIS connects where things are with all types of descriptive information (what things are like there). This provides a foundation for mapping and analysis that is used in science and almost every industry.

1.0 Hallo!	Hello!
Guten Tag!	Good day!
Guten Morgen!	Good morning!
Guten Abend!	Good evening!
Wie geht's?	How are you?
gut, danke.	Well, thank you.
nicht schlecht	not bad
nicht so gut	not so well
Tschüss!	Bye!
Auf Wiedersehen!	Goodbye!
Montag	Montag
Dienstag	Tuesday
Mittwoch	Wednesday
Donnerstag	Thursday
Freitag	Friday
Samstag	Saturday
Sonntag	Sunday

1.1 Wie heißt du?	What are you called?
Wie sagt man...?	How do you say...?
Wie schreibt man das?	How do you write it?
Ich heiße	I am called
das Mädchen	girl
der Junge	boy
die Frau	woman
der Mann	man

1.2 Wie alt bist du?	How old are you?
Ich bin ... Jahre alt	I am .. years old
null	0
eins	1
zwei	2
drei	3
vier	4
fünf	5
sechs	6
sieben	7
acht	8
neun	9
zehn	10
elf	11
zwölf	12
dreizehn	13
vierzehn	14
fünfzehn	15
sechzehn	16
siebzehn	17
achtzehn	18
neunzehn	19
zwanzig	20

1.3 Wo wohnst du?	Where do you live?
Ich komme aus....	I come from
Deutschland	Germany
Großbritannien	Great Britain
Österreich	Austria
der Schweiz	Switzerland
Ich wohne in	I live in
das Dorf	village
die Stadt	town
Ich finde	I find
interessant	interesting
langweilig	boring
toll	great
es gefällt mir	I like it

1.4 Herzlichen Glückwunsch	Happy birthday!
Wann hast du Geburtstag?	When is your birthday?
Ich habe im .. Geburtstag	My birthday is in..
Januar	January
Februar	February
März	March
Mai	May
Juni	June
Juli	July
Oktober	October
Dezember	December

1.5 Wer war das?	Who was that?
einundzwanzig	21
dreißig	30
vierzig	40
fünfzig	50
sechzig	60
siebzig	70
achtzig	80
neunzig	90
hundert	100
zweihundert	200
tausend	1000
sechsundvierzig	46
achtundneunzig	98
am ersten	on 1st
am zweiten	on 2nd
am dritten	on 3rd
am vierten	on 4th
am sechsten	on 6th
am siebten	on 7th
am achten	on 8th
am zwanzigsten	on 20th
am dreißigsten	on 30th

2.1 Meine Familie	My family
Hast du Geschwister?	Do you have siblings?
Ich habe einen Bruder	I have a brother
Ich habe eine Schwester	I have a sister
Ich bin Einzelkind	I am an only child
Ich habe keine Geschwister	I have no siblings
Großmutter / Oma	grandmother
Mutter	mother
Halbschwester	half sister
Stiefschwester	stepsister
Stiefmutter	stepmother
Vater	father
Großvater / Opa	grandfather
Halbbruder	half brother
Stiefbruder	stepbrother
Stiefvater	stepbrother
Eltern	parents
Großeltern	grandparents
Zwillinge	twins

2.2 Meine Freunde	My friends
Wie ist er / sie?	What is he/she like?
er ist	he is
sie ist	she is
freundlich	friendly
intelligent	intelligent
kreativ	creative
lustig	funny
faul	lazy
frech	cheeky
launisch	moody
egoistisch	selfish
schüchtern	shy
leise	quiet
auch	also
(gar) nicht	not (at all)
sehr	very
ziemlich	quite

2.3 Farben und Aussehen	Colours and appearance
Was ist deine Lieblingsfarbe?	What is your favourite colour?
blau	blue
rot	red
gelb	yellow
violett	violet
orange	orange
grün	green
braun	brown
grau	grey
schwarz	black
weiß	white
Wie siehst du aus?	What do you look like?
blond	blond
glatt	straight
lockig	curly
lang	long
kurz	short
mittellang	medium-length
Bart	beard
Schnurrbart	moustache
Sommersprossen	freckles

Knowledge Builder:

Logo provides access to a wide range of listening and reading resources. You can watch the last seven days of news bulletins and read about anything that takes your interest.

1. Which groups came to Great Britain and what did they bring?

1.1	Celts	Arrived around 500BC. Some of their religious festivals are still celebrated today, for example Halloween and Mayday. Leaders voted into important positions of power.
1.2	Romans	Arrived in 43AD. Introduced cabbage, peas, cats, wine and apples. Built many roads that current roads are based on. Roman towns like York, Chester and Bath still exist today.
1.3	Anglo-Saxons	Arrived around 410AD. Anglo-Saxon formed the base of modern English, words like bed, cat, dog, lick, tree, jump. Places ending in 'ton' or 'burh' were Anglo-Saxon in origin.
1.4	Vikings	Arrived from 792 AD. Words like happy, angry, ill, skirt, skin and bag. Days of the week are named after Viking Gods: Thursday = 'Thor's day' Thor was the god of thunder Friday= 'Freya's day' Freya was the goddess of beauty.

2. Life in Anglo-Saxon England.

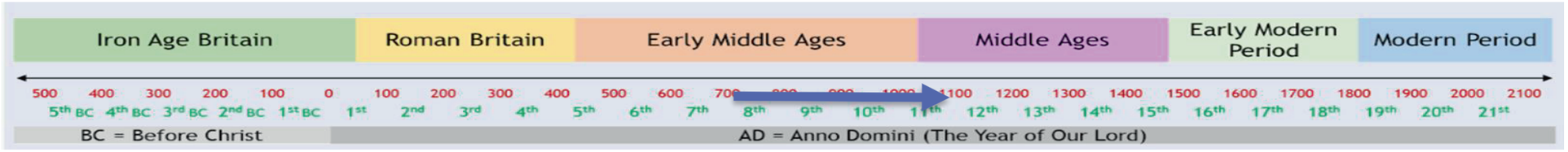
2.1	hundred	The smaller area counties were split into in Anglo-Saxon England.
2.2	wergild	Compensation paid by someone for committing offence or injury to another.
2.3	thane	A lord who was given land in return for fighting for the King.
2.4	churl	An ordinary person or 'free man' not a slave or a lord.
2.5	St Brice's Day Massacre	The murder, ordered by the King, of thousands of Danish people living in England.

3. 1066 and the contenders for the throne.

3.1	heir	The person who will become king after the current king dies.	<u>William Duke of Normandy.</u> Ruled Normandy, France, since the age of 10. He believed he had been promised the English throne by Edward the Confessor.	
	succession	Succeeding or coming after another person.		
	witan	The Anglo-Saxon national council.		
3.2	<u>Harold Godwinson.</u> Also known as Harold II. Fought Key battles at Stamford Bridge and Hastings in 1066.		<u>Harald Hardrada</u> Fearsome King of Norway, often called the last Viking. Had a reputation as a brilliant fighter but also cruel to enemies.	

4. Battle of Hastings.

4.1	fyrd	The fyrd were ordinary men who were called up to fight for the king in times of danger.
4.2	housecarl	Professional soldiers and members of the bodyguard of the English king.
4.3	feint	A pretend movement to try and distract the enemy.
4.4	cavalry	Soldiers who fight on horseback.

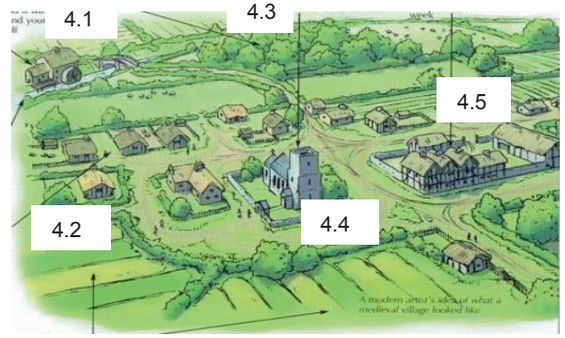


1. How did William control England?		
1.1	Feudal System	A political system in which landholders provide land to tenants in exchange for their loyalty and service.
1.2	Domesday Book	A record of the "Great Survey" of much of England and parts of Wales completed in 1086 by order of William I.
1.3	vassal	A person regarded as having a mutual obligation to a lord or monarch.
1.4	Baron	Baron is a rank of nobility Would often own land in return for serving the king.

3. Women in Norman England.		
3.1	rebellious	showing a desire to resist authority.
3.2	dowry	an amount of property or money brought by a bride to her husband on their marriage.
3.3	betrothed	formal engagement to be married; engagement.
3.4	nunnery	A building or group of buildings in which nuns live as a religious community.

2. Life in Norman England- Towns		
2.1	councillor	A member of a council who would normally run a town of city.
2.2	artisan	A worker in a skilled trade, especially one that involves making things by hand.
2.3	apprentice	A person who is learning a trade from a skilled employer, having agreed to work for a fixed period at low wages.
2.4	labourer	A person doing unskilled manual work for wages.
2.5	freeman	A peasant who is free and not a slave.
2.6	villein	A feudal tenant entirely subject to a lord to whom he paid rent and services in return for land.

4. Life in Norman England- Villages		
4.1	mill	Peasants had to pay to use it and it was illegal to grind your own corn.
4.2	villeins huts	Small but some space to grow vegetables or keep animals in the garden.
4.3	woodland	Only the lord can hunt in it.
4.4	church	Centre of village life. Villeins have to give 10% of everything they make to the priest.
4.5	manor	Home of the lord. Villeins had to work for him for 3 days a week.
4.6	open fields	Each villein had 1-2 strips of land to grow their own crops.



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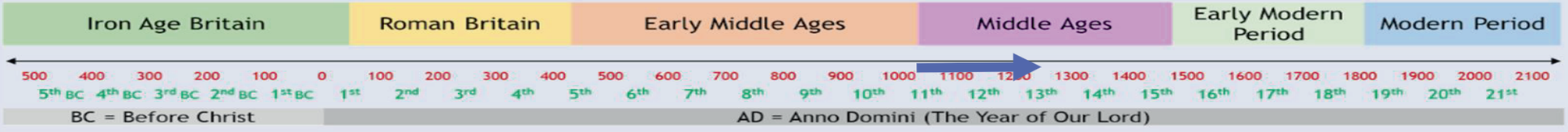


What to know more about each of the contenders to the throne in 1066?
Maybe you would like more detail about the Battle of Stamford Bridge or Hastings? Then use this QR code to get access to BBC Teach 1066 playlist on YouTube.

Watch this BBC Teach clip for more information on Vikings and their impact on Britain.

Interested in learning about life in Anglo-Saxon England? Have a look at these YouTube clips on daily life for an Anglo-Saxon.

Daily life

Cooking

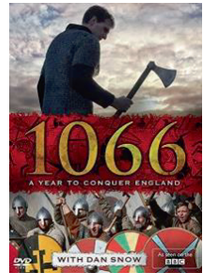
Places to go:

Battle Abbey, the site of the Battle of Hastings

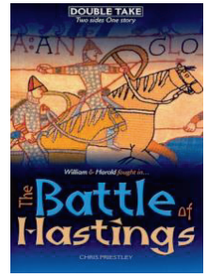
Winchester cathedral

Buster Ancient Farm: Anglo-Saxon village

Documentaries to watch:



Books to read:



What to know more about Aethelflæd and her role in creating England? Then watch this short clip from Historian Tom Holland.

Stretch your vocabulary		
a.1	morale	The confidence, enthusiasm, and discipline of a person or group at a particular time.
a.2	provenance	A place, person, or thing from which something originates.
a.3	oath	A calling upon God to witness that one sincerely intends to do what one says.
a.4	contemporary	Living or occurring at the same time.
a.5	nobility	The people of the highest social rank in a society.
a.6	circa	Approximately.
a.7	tax	Money everyone contributes to the government to pay for the running of the country.
a.8	vassal	Someone who owns land in return for loyalty to their lord.
a.9	justice	The carrying out and maintaining of the law.
a.10	administration	The process or activity of running the country.
a.11	labour	Work, especially physical work.
a.12	monastery	A building or buildings occupied by a community of monks.
a.13	fief	An estate of land, especially one held on condition of feudal service
a.14	hierarchy	a system in which members of an organization or society are ranked according to relative status or authority.

Saluti - Basic greetings		
1.1	Ciao!	Hello!/ Goodbye!
1.2	Buongiorno!	Good morning!
1.3	Buonasera!	Good evening!
1.4	Buonanotte	Good night!
1.5	Arrivederci!	Goodbye!

Domande & Risposte		Key questions & answers
1.6	Come stai?	How are you?
1.7	Sto bene, grazie!	I am well, thank you!
1.8	Così così	So so
1.9	Sto male	I am not having a good day
2.0	Ho fame	I am hungry
2.1	Ho sete	I am thirsty
2.2	Sono stanco/a	I am tired
2.3	Quanti anni hai?	How old are you?
2.4	Ho …. anni	I am …. years old
2.5	Quando è il tuo compleanno?	When is your birthday?
2.6	Il mio compleanno è il ……	My birthday is on the ….

Giorni della settimana		Days of the week
2.7	lunedì	Monday
2.8	martedì	Tuesday
2.9	mercoledì	Wednesday
3.0	giovedì	Thursday
3.1	venerdì	Friday
3.2	sabato	Saturday
3.3	domenica	Sunday
3.4	oggi è	today is
3.5	Il mio giorno preferito è	My favourite day is…

Mesi		Months
3.6	gennaio	January
3.7	febbraio	February
3.8	marzo	March
3.9	aprile	April
4.0	maggio	May
4.1	giugno	June
4.2	luglio	July
4.3	agosto	August
4.4	settembre	September
4.5	ottobre	October
4.6	novembre	November
4.7	dicembre	December

Numbers 1-30			
1	uno	16	sedici
2	due	17	diciassette
3	tre	18	diciotto
4	quattro	19	diciannove
5	cinque	20	venti
6	sei	21	ventuno
7	sette	22	ventidue
8	otto	23	ventitre
9	nove	24	ventiquattro
10	dieci	25	venticinque
11	undici	26	ventisei
12	dodici	27	ventisette
13	tredici	28	ventotto
14	quattordici	29	ventinove
15	quindici	30	trenta

Classroom language		
4.8	Posso avere..?	Can I have …?
4.9	Ho/ Non ho	I have / I don't have
5.0	una penna	a pen
5.1	un foglio	a piece of paper
5.2	Come si dice … in Italiano?	How do you say …. in Italian?
5.3	Come si dice… in Inglese?	How do you say … in Inglese?
5.4	Può ripetere, per favore?	Can you repeat, please?

Colori		Colours
1.1	rosso	Red
1.2	blu	navy blue
1.3	verde	Green
1.4	bianco	White
1.5	arancione	Orange
1.6	rosa	pink
1.7	azzurro	mid blue
1.8	celeste	light blue
1.9	giallo	yellow
2.0	nero	black
2.1	viola	purple

La mia famiglia		My family
2.4	mia madre	my mother
2.5	mio padre	my father
2.6	mio fratello	my brother
2.7	mia sorella	my sister
2.8	mio zio	my uncle
2.9	mia zia	my auntie
3.0	mio cugino	my cousin (male)
3.1	mia cugina	my cousin (female)
3.2	mio nonno	my grandpa
3.3	mia nonna	My grandma
3.4	si chiama	is called …
3.5	i miei fratelli	my brothers/ my siblings
3.6	le mie sorelle	my sisters
3.7	si chiamano	are called …

Gli animali		Animals
3.8	un cane	A dog
3.9	un cavallo	A horse
4.0	un coniglio	A rabbit
4.1	un criceto	A hamster
4.2	un gatto	A cat
4.3	un pesce	a fish
4.4	un porcellino d'India	A guinea-pig
4.5	un serpente	A snake
4.6	un topo	A mouse
4.7	un uccello	A bird
4.8	una tartaruga	A turtle

Il Natale		Christmas
5.0	Buon Natale!	Merry Christmas!
5.1	Babbo Natale	Father Christmas
5.2	la vigilia di Natale	Christmas Eve
5.3	un regalo	a present
5.4	l'albero di Natale	The Christmas tree
5.5	il presepe	The nativity scene
5.6	Capodanno	New Year's Eve

Informazioni personali		Personal information
2.2	ho gli occhi azzurri marroni neri Verdi	I have blue eyes brown black green
2.3	ho i capelli biondi e corti castani lunghi neri lisci rossi ricci grigi ondulati a spazzola	I have blond and short hair brown long black straight red curly grey wavy spiky

Would you like to go through topic one in more detail?
If you go to Student Resources Italian look for yr 7 and then yr 7 podcasts and listen to Podcast one and podcast two.

Family extra!
Watch this video for more vocabulary to describe your family

CULTURE extra! Christmas
Watch this video to learn more about Italian Christmas traditions.

Using Quizlet is a great way to learn vocabulary.
Go onto Student Resources Italian yr 7 Quizlet extra Autumn 1 to find a quizlet set to challenge you even further in this unit

Greetings extra!
Watch this video for more help with saying how you are

This topic is about the context and meaning of mathematics rather than learning new skills.
Please be ready to listen, consider and discuss in class.
It would be helpful if you can recall these Key Stage 2 maths concepts as you start secondary school

- ❑ Mental multiplication of whole numbers from 1 – 12
- ❑ Square numbers and Cube numbers

Square Numbers
$1^2 = 1\times1 = 1$
$2^2 = 2\times2 = 4$
$3^2 = 3\times3 = 9$
$4^2 = 4\times4 = 16$
$5^2 = 5\times5 = 25$
$6^2 = 6\times6 = 36$
$7^2 = 7\times7 = 49$
$8^2 = 8\times8 = 64$
$9^2 = 9\times9 = 81$
$10^2 = 10\times10 = 100$

Cube Numbers
$1^3 = 1\times1\times1 = 1$
$2^3 = 2\times2\times2 = 8$
$3^3 = 3\times3\times3 = 27$
$4^3 = 4\times4\times4 = 64$
$5^3 = 5\times5\times5 = 125$
$6^3 = 6\times6\times6 = 216$
$7^3 = 7\times7\times7 = 343$
$8^3 = 8\times8\times8 = 512$
$9^3 = 9\times9\times9 = 729$
$10^3 = 10\times10\times10 = 1000$

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Link to Kings' Maths Resources

Year 7 Mathematics Curriculum Overview and Revision Support

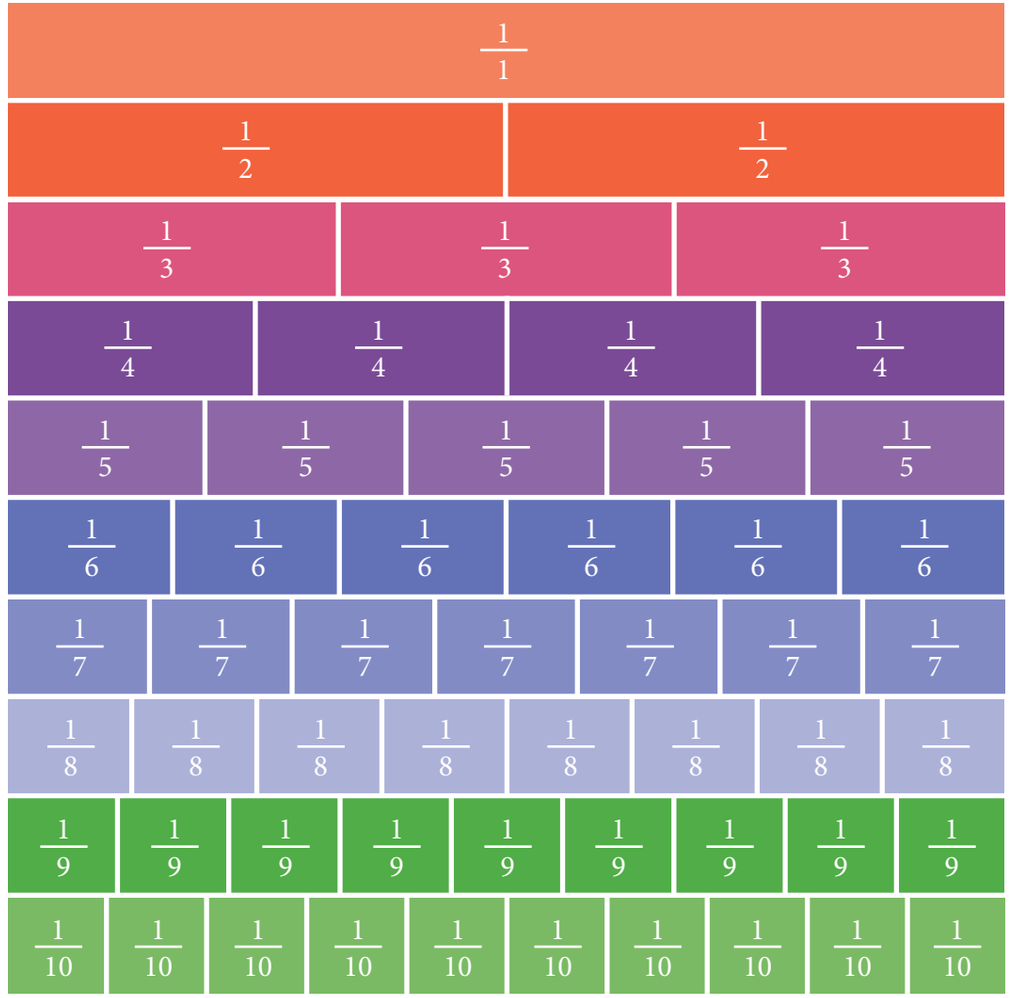
Resources related to this topic

This module is about the context and meaning of mathematics rather than learning new skills. Please be ready to listen, consider and discuss in class.

It would be helpful if you can recall and learn these Key Stage 2 mathematical concepts as you start secondary school

- ❑ Equivalent fractions (opposite)
- ❑ Equivalent fractions, decimals and percentages (below)

Fraction	Decimal	Percent
$^1/_1$	1	100%
$^1/_2$	0.5	50%
$^1/_3$	0.333 …	33% approx
$^1/_4$	0.25	25%
$^1/_5$	0.2	20%
$^1/_6$	0.166 …	17% approx
$^1/_7$	0.142 …	14% approx
$^1/_8$	0.125	12.5%
$^1/_9$	0.111 …	11% approx.
$^1/_{10}$	0.1	10%



Link to Kings' Maths Resources

Year 7 Mathematics Curriculum Overview and Revision Support

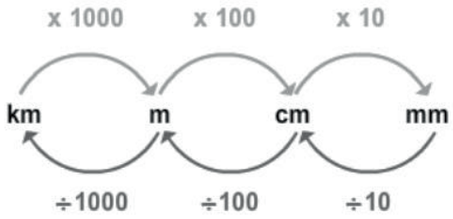
Resources related to this topic

By the end of this module you should be able to:-

- ❑ Read a scale on a measuring instrument
- ❑ Convert between metric units of length
- ❑ Know and convert between metric units of mass and capacity
- ❑ Convert between metric and imperial units
- ❑ Convert between units of time
- ❑ Recognise compound measures

Important things to remember:-

1) Kilo means 1000
2) Centi means 100th
3) Milli means 1000th
4) Make sure you convert correctly. There is 100 cm in 1m so 3.2 m is 3.2 x 100 = 320 cm
5) Check if your answer is sensible. Your journey to school is NOT 500 km!



Language	Meaning	Example
Metric system	In the metric system, units of measurement are related by powers of 10	10mm = 1cm 100cm = 1m
Length	How long something is	The length of a man's stride is about 1m
Mass	How heavy something is	The typical mass of a bag of sugar is 1kg
Capacity	How much something holds	The typical capacity of a drinks can is 330ml
Time	Time is measured in seconds, minutes and hours	1 minute = 60 seconds 1 hour = 60 minutes 1 day = 24 hours
Metric unit	A unit of measurement from the metric system which is based on powers of 10	Centimetres, metres, kilometres, grams, kilograms, tonnes are examples of metric units
Imperial unit	To replace a letter in an algebraic expression with a number	Inches, feet, yards, miles, ounces, pounds, stone, tons are examples of imperial units
Speed	A measure of the weight at which distance is covered	The speed of sound travelling through air is roughly 343 m/s

Link to Kings' Maths Resources

Year 7 Mathematics Curriculum Overview and Revision Support

Links, Lessons and Practice Questions for this topic

By the end of this module you should be able to:-

- ❑ Write numbers in words and figures
- ❑ Arrange decimal numbers in order
- ❑ Multiply and divide by 10, 100, 1000
- ❑ Add and subtract positive and negative integers
- ❑ Multiply and divide positive and negative integers
- ❑ Use divisibility tests
- ❑ Recognise prime numbers
- ❑ Find the prime factor decomposition of a number
- ❑ Find the lowest common factor and highest common multiple of 2 numbers
- ❑ Recognise and use cube and square numbers, cube and square roots

Language	Meaning	Example
Digit	A single figure within a number	0, 1, 2, 3, 4, 5, 6, 7, 8, 9 are all digits
Place value	The value of a digit within a number	In 3.65 the 6 has a value of $\frac{6}{10}$
Decimal point	The dot separating units from tenths	In 3.65, the decimal point separates 3 units from 6 tenths
Integer	A whole number	7 is an integer but 7.5 is not
Negative number	A number smaller than zero	-5 is a negative number
Brackets	These tell you to do this part of the calculation first	10 – 5 – 3 = 2. But 10 – (5 – 3) = 10 – 2 = 8
Multiple	A number which is part of a numbers times table	12 and 18 are both multiples of 6
Factor	A number which exactly divides into another number	4 and 6 are both factors of 12
Product	Another word for multiplication	The product of 3 and 4 is 12
Factor Tree	A method for finding the prime factor decomposition of a number	
Highest Common Factor	The biggest number which divides into both of two other numbers	6 is the highest common factor of 12 and 18
Lowest Common Multiple	The smallest number which is in the times table of two other numbers	30 is the lowest common multiple of 5 and 6
Square number Cube number	A number which is found by multiplying an integer by itself two or three times	$9 = 3 \times 3 = 3^2$ (the square of 3) $27 = 3 \times 3 \times 3 = 3^3$ (the cube of 3)
Square root Cube root	The opposite of a square number or cube number	$3 = \sqrt{9}$ Is the square root of 9 $3 = \sqrt[3]{27}$ is the cube root of 27

Link to Kings' Maths Resources

Year 7 Mathematics Curriculum Overview and Revision Support

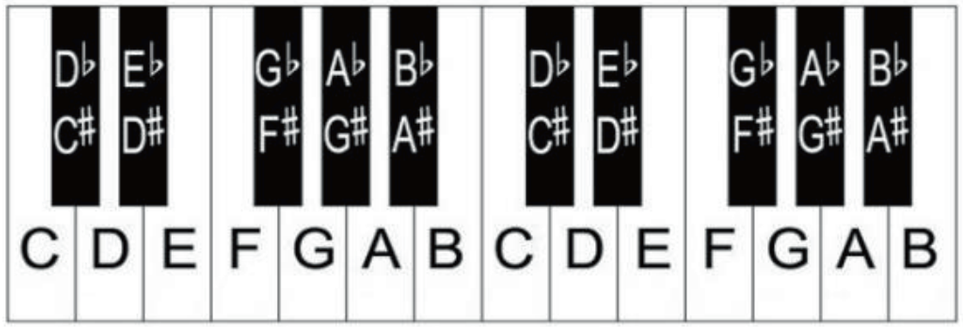
Links, Lessons and Practice Questions for this topic

Year 7 focuses on how Music uses ***patterns, textures and structures.***

1. Elements of Music

1.1	**pitch**	The position of a single sound in the complete range of sound. *High / low*
1.2	**tempo**	The pace of the music. *Fast / Slow*
1.3	**texture**	Describes how layers of sound within a piece of music interact. *Thick / thin*
1.4	**timbre**	The quality of tone distinctive to a particular voice or instrument. *Example: bright, mellow*
1.5	**dynamics**	The variation in loudness between notes or phrases. *Loud / Soft (piano, forte, crescendo, diminuendo)*
1.6	**duration**	The length of a note or series of notes. *Long / Short*
1.7	**silence**	No noise. This can create tension in music.
1.8	**melody**	A melody is a succession of pitches in rhythm.
1.9	**rhythm**	A rhythm is a pattern of sounds of different lengths.

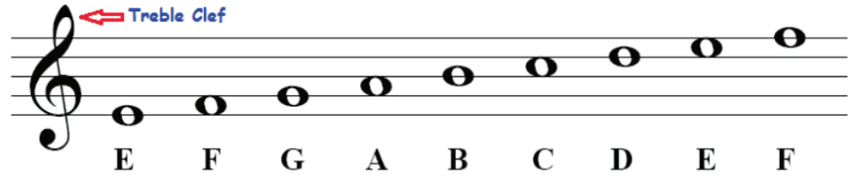
2. Notes on the keyboard



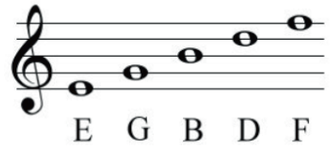
3. Note lengths

ITEM	NOTE	REST	VALUE (number of beats)
Whole note/rest			4
Half note/rest			2
Quarter note/rest			1
Eighth note/rest			1/2
Sixteenth note/rest			1/4

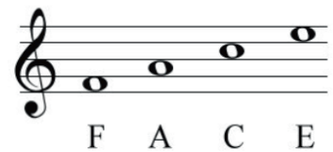
4. Notes on the stave



Line Notes



Space Notes



Year 7 focuses on how Music uses ***patterns, textures and structures.***

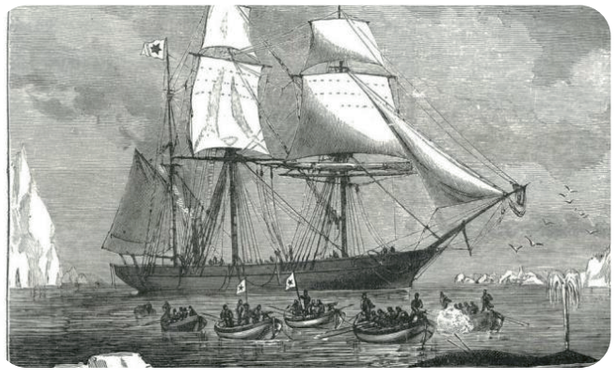
5. Sea Shanties – key vocabulary		
5.1	**Shantyman**	The "caller" or lead singer.
5.2	**call & Response**	One person (the "Shantyman") sings a line which the group then respond to.
5.3	**harmony**	When two or more singers in a sea shanty sing different pitches at the same time.
5.4	**ostinato**	A repeated rhythmic pattern.
5.5	**unison**	When a group of singers sing at the same pitch.

6. Sea Shanties – year 7 focus – use of patterns, textures and structures		
6.1	**patterns**	Patterns used in sea shanties include: - rhyming patterns in lyrics (*for example, lines 1, 2 & 3 rhyme in "Drunken Sailor").* - melodic patterns at different pitches (*for example, the second line in "Drunken Sailor" is a repeat of the first line but at a lower pitch*).
6.2	**textures**	Textures used in sea shanties include: - call & response between the Shantyman and the crew. - percussive ostinato / ostinati (plural). - staggered entries of parts.
6.3	**structures**	Structural elements of sea shanties to understand include: - use of an introduction & outro. - verses & choruses have 4 lines each.

7. Sea Shanties – Halyard and Capstan Shanties		
7.1	**halyard**	A shanty sung to coordinate hauling of ropes.
7.2	**capstan**	A shanty sung when a capstan - a type of winch – was used to raise the anchor.

8. Sea Shanties		
8.1	What is a sea shanty?	Sea Shanties are work songs of sailors on board ships out at sea.
8.2	What musical styles influenced early shanties?	Early shanties were influenced by British folk music and the African American work songs.
8.3	Some sea shanties are *'a capella',* but others used instruments – which ones?	If instruments are used, the most common ones are the fiddle, tin whistle, mandolin or squeezebox.
8.4	What was the *purpose* of a sea shanty?	Shanties could help keep time among groups of sailors, coordinate physical movements like hauling ropes and raising sails, and relieve the boredom of long, repetitive tasks.
8.5	What are the origins of the word "shanty" when it emerged in the 1800s?	One often proposed origin is that it came from the French word 'chanter', meaning to sing.
8.6	What sparked the decline in the singing of sea shanties?	The switch to steam-powered ships and the use of machines for shipboard tasks, by the end of the 19th century, meant that shanties gradually ceased to serve a practical function.

9. Sea Shanties – scan QR to listen to examples



Year 7 focuses on how Music uses ***patterns, textures and structures.***

10. Music of Africa – key vocabulary		
10.1	**polyrhythm**	Many rhythms performed at the same time.
10.2	**djembe**	A type of West African drum.
10.3	**pulse**	A steady beat.
10.4	**unison**	All playing the same thing (rhythm) at the same time.
10.5	**membranophones**	An instrument in which the sound is produced by a stretched membrane, such as a drum.
10.6	**idiophones**	An instrument from which the sound is produced by hitting, shaking or scraping.
10.7	**cordophones**	An instrument from which the sound is produced by bowing or plucking a string.
10.8	**aerophones**	An instrument from which the sound is produced by blowing air in or across a mouthpiece.

11. Music of Africa		
11.1	Where does African drumming traditionally come from?	Sub-Saharan Africa
11.2	Why did it originate?	Drumming is traditionally used to communicate over long distances (for example, to warn of potential dangers, such as dangerous animals nearby)
11.3	What events are celebrated using these drums?	To celebrate marriages, welcome visitors, and also also played at funerals.
11.4	Is drumming accompanied by anything?	Drumming is sometimes accompanied by singing.
11.5	How is it learned?	It is learned through aural tradition — it is not written down, but passed down through generations.

12. Music of Africa – drumming techniques – *slap, tone* & *bass*.

13. Music of Africa – year 7 focus – use of patterns, textures and structures		
13.1	**patterns**	Repetition and cyclic rhythms used to organise music. A repeated pattern (**ostinato**) is used as a basis for **improvisation** to "hold the piece together".
13.2	**textures**	Staggered entries, polyrhythms. Drum ensembles have 3-5 players each with a distinctive method of striking their drum and playing interlocking rhythms, creating thick textures.
13.3	**structures**	Introduction, followed by an 8-bar section in your polyrhythmic composition.

14. Music of Africa – African instruments

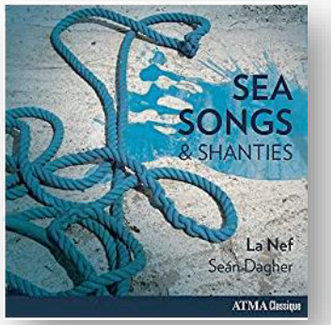
Dunun

Talking Drum

Djembe

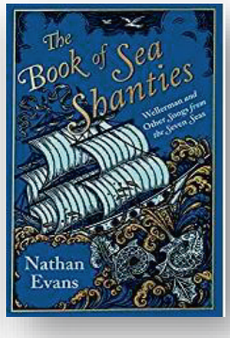
SEA SHANTIES

Listen



Further listening to a variety of sea shanties.

Read



A copy of this book can be found in the library.

Watch

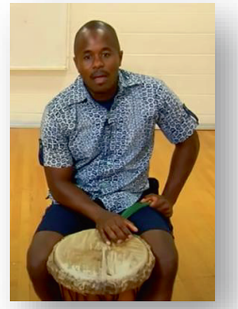
Watch this documentary by Gareth Malone about sea shanties.

Use the QR codes above to hear more sea shanties, locate this book by the composer of the 'Wellerman' Nathan Evans about his favourite shanties in the school library, or watch a documentary about the history of Sea Shanties.

TASK: Using the OneNote recording of your Sea Shanty, try to compose a harmony line over the chorus melody.

WEST AFRICAN DRUMMING

Watch



A video recapping Djembe technique.

Read

A link to a great website about the history of the Djembe.

Listen

Listen to traditional African music.

TASK: Can you compose a polyrhythm using more complex notation such as dotted rhythms, triplets and semiquavers?

You can use the website linked here to recap your knowledge of note values.

1. Friendship		
1.1	respect	When you take into account other people's feelings, wishes and rights.
1.2	boundaries	Guidelines, rules and limits a person has to make them feel safe.
1.3	privacy	Ownership of personal space and keeping feelings or thoughts to yourself.
1.4	consent	Asking for and giving permission freely.
1.5	conflict	Disagreement between two people or groups of people.
1.6	reconciliation	Working through issues to become friends again.
1.7	peer pressure	The pressure to behave in a certain way because friends or people in a group expect it.

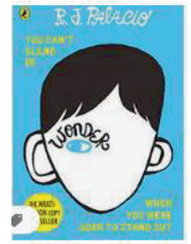
3. Bullying		
3.1	bullying	Behaviour by an individual or group, usually repeated over time, that intentionally hurts another individual or group, either physically or emotionally.
3.2	bullying behaviours	Behaviour that is intended to hurt someone in some way.
3.3	cyber-bullying	These are any form of bullying that involves the use of mobile phones or the internet.
3.4	verbal bullying	Calling names, teasing, insulting appearance or religion for example.
3.5	physical bullying	Hitting, kicking, punching, pulling hair etc.
3.6	emotional bullying	Making someone feel upset, worried, scared or lonely on purpose.
3.7	bystander	Someone who sees bullying happening but does not intervene or report it.

2. Friendship issues and questions	
2.1	What does a healthy friendship/relationship look like?
	• Involves honesty, trust, respect and open communication. • Takes effort and compromise. • No imbalance of power. • Respect each other's independence, • Making your own decisions without fear of retribution or retaliation, • Share decisions.
2.2	What does good listening look like?
	Active listening involves listening with all senses. It is important that you are 'seen' to be listening, through eye contact, nodding your head and smiling, agreeing ' to encourage them to continue.
2.3	How can I resist pressure?
	Listen to your gut, plan for possible situations, arrange a 'bail-out' code with your parents/trusted adult, learn to feel comfortable saying 'no', blame your parents for not letting you do something, if the situation is dangerous – contact an adult.

4. Bullying issues and questions	
4.1	What should I do if I see someone, or know someone is being bullied?
	If it is in school you should report it straight away to your tutor or HOY. You might be asked to write a statement of what you saw/heard. Or tell a trusted adult outside of school who you know will act on your behalf.
4.2	Is it true that if I report someone is bullying me it will get worse or nothing will be done about it?
	No. The evidence shows that most bullying stops once it has been reported, and if it carries on, the consequences for the bully are more severe.
4.3	Who makes up my personal network?
	Close friends, parents/guardian, family relation eg auntie, close adult family friend, tutor, teacher, HOY, police, Child line.

childline

Friendship quiz



Watch or read?

1. What is religious studies?		
1.1	belief	A feeling that something is true with no proof.
1.2	religion	The belief in and worship of a superhuman controlling power, especially a personal God or gods. A particular system of faith and worship.
1.3	Theological lens	Looking at beliefs: what they are, where they have come from and how they have changed.
1.4	Philosophical lens	Looking at the nature of reality, existence and knowledge.
1.5	Sociological lens	Looking at the way that religion and beliefs are lived and the impact they can have on individuals, communities and societies.
1.6	The Blind Men and the Elephant	The story of the blind men and an elephant comes from India. It is story about a range of truths based on limited knowledge and failing to see the whole picture.

2. Where does belief come from?		
2.1	Lion Man	He is the oldest known representation of a being that does not exist in physical form but symbolises ideas about the supernatural.
2.2	prehistoric	A time before written records.
2.3	story	An account of imaginary or real people and events told for entertainment.
2.4	Joan Didion	An American writer. "We tell ourselves stories in order to live":
2.5	Emile Durkheim	Known as the father of sociology. "Without our stories we no longer exist."

4. What is a religion?		
4.1	Ninian Smart	He defined religion by looking at 7 dimensions: narrative /mythological, doctrinal, ethical, institutional, material, ritual and experiential.
4.2	Humanism	Humanists do not believe in a god. They believe it is possible to live a good and fulfilling life without following a traditional religion. They value traits like reason and rely on science to explain the way things are.
4.3	atheism	People who are atheist are described as people who do not need religious explanations or the promise of an afterlife to see value in the human experience. They do not believe in a God or gods.
4.4	agnostic	Someone who holds the view that it is impossible to know the truth about some things, such as God's existence or the afterlife.

3. What are the beliefs of the world religions?		
3.1	census	The census is a survey that happens every 10 years and gives us a picture of all the people and households in England and Wales and aspects of their life such as religion.
3.2	Christianity	• Christians believe in one God. • God is shown through the Holy Trinity. • God the Father, Son and Holy Spirit.
3.3	Judaism	• Jews believe in one God. • Jews have a special agreement with God called a covenant.
3.4	Islam	• Muslims believe in one God called Allah. • Allah sent Angel Jibril to speak Allah's message to Prophet Muhammad.
3.5	Hinduism	• Hindus believe in one God called Brahman: the supreme force present in all things. • Hindus worship many gods and goddesses in addition to Brahman. • Brahma, Vishnu, Shiva, Ganesha.
3.6	Sikhism	• Sikhs believe in one God called Waheguru. • Waheguru means 'Wonderful Lord' or 'Wonderful Teacher'. • Sikhs believe in the equality of mankind.
3.7	Buddhism	• Buddhists believe in the teachings of the Buddha. • Dukkah: life is painful and full of suffering. • Enlightenment leads to Nivana and ends the cycle of rebirth.
3.8	secular	Not connected with spiritual or religious matters - i.e non-religious.
3.9	multicultural	The presence of several distinct cultural or ethnic groups within a society.

5. How is belief shown in action?		
5.1	Gandhi	Gandhi was a committed Hindu who wanted India to rule itself. Gandhi believed in peaceful actions with no violence. He was successful and India became independent.

6. How is a world view formed?		
6.1	worldview	A worldview is a collection of attitudes, values, stories and expectations about the world around us, which inform our every thought and action.

1. What are the biblical accounts of creation?		
1.1	creation	The action of bringing something into existence.
1.2	Bible	The book of sacred writings accepted as coming from God.
1.3	Genesis	The first book in the Bible which describes how God created the universe.
1.4	God	The supernatural being that caused, controls, commanded and sustains creation, which is seen as being "good".
1.4	Genesis Chapter 1	• The first creation story • Written as a poem • God created the universe in a specific order over 6 days and rested on the 7th. • Thought to have been written during the 7/6 centuries BCE.
1.5	Genesis Chapter 2	• The second creation story written in the Bible, • Older than the first, probably written in the 8th century BCE. I • A narrative story that shows God interacting with creation. • It has a different order of creation, with man being created and crafted first.

2. What responsibilities were given to man?		
2.1	stewardship	Taking care of something on behalf of someone else. In the case of creation God gives mankind the responsibility of looking after His creation.
2.2	interpretation	An explanation or opinion of what something means.
2.3	literal interpretation	• The belief that the Bible is the actual word of God. • Genesis 1 and 2 are true and accurate descriptions of how the world was created. • Literalists reject scientific theories.
2.4	liberal interpretation	The belief that the Bible can be interpreted metaphorically. Liberalists accept that the Bible will have contradictions as it was written by humans and so is imperfect. Liberalists will accept scientific theories about the origins of the universe.

3. What are the scientific theories of creation?		
3.1	Big Bang theory	▪ 14 billion years ago, matter expanded rapidly. ▪ Stars, galaxies and planets formed. ▪ 4.6 billion years ago Earth was formed. ▪ The theory put forward in the 1920s and is still our best understanding of how the universe came to exist.
3.2	Charles Darwin	▪ In 1859 Charles Darwin published On the Origin of Species. ▪ Based on his studies of creatures he had encountered on his travels the Galapagos Islands.
3.3	The theory of evolution	• All living creatures that exist including human beings, have evolved from primitive life forms over a period of millions of years. • Evolution happens by natural selection - survival of the fittest.

4. Can science and religion agree about creation?		
4.1	Albert Einstein	• Einstein was a scientist. • He wrote, "Science without religion is lame, religion without science is blind." • This quote is used to show how religion and science can be compatible and have mutual interdependence.

2. Bible verses		
2.1	"So God created mankind in his own image." (Genesis 1:27)	• Mankind was created differently from the rest of creation • Man is given responsibilities to "rule over the land".
2.2	"Then the LORD God formed a man from the dust of the ground and breathed into his nostrils the breath of life." Genesis 2:7)	• Mankind was created through the breath of God. • Man is given responsibility to name the animals and "to take care" over creation.

What is religious belief?

The Blind Men and the Elephant
Youtube

2011 Census on religion
Office for National Statistics

About the world religions
BBC Bitesize

Lion Man
Youtube

The life of Gandhi
Youtube

Gandhi - Ghana statue
Youtube

Knowledge Builder: How did we get here?

Genesis 1 Creation Story
Youtube

Genesis 2 Creation Story
Youtube

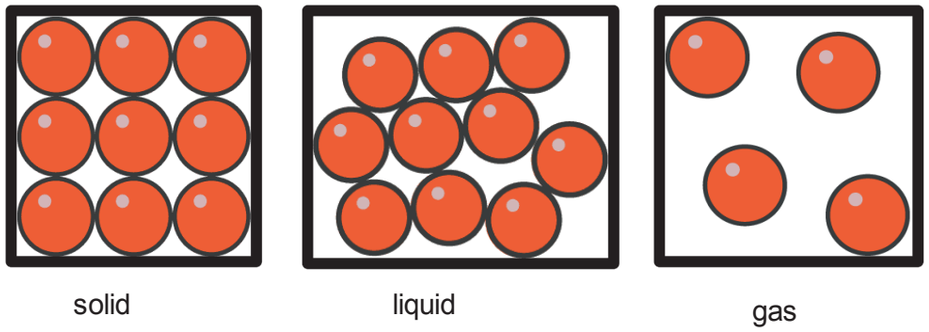
Differences between the Biblical creation stories
Youtube

Different interpretations of creation
BBC Bitesize

Creation
BBC Bitesize

1. Solids, Liquids and Gases		
1.1	What are the three states of matter?	Solids, liquids, gases
1.2	Which state of matter has a fixed shape **and** volume?	Solid
1.3	Which states of matter can flow?	Liquid and gas
1.4	Which state of matter flows to fit the shape of the container?	Liquid
1.5	Which state of matter expands to fill the volume of their container?	Gas
1.6	Which state of matter has a fixed volume but not a fixed shape?	Liquid
1.7	Which states of matter cannot be compressed?	Solid and liquid
1.8	Which state of matter can be compressed?	Gas

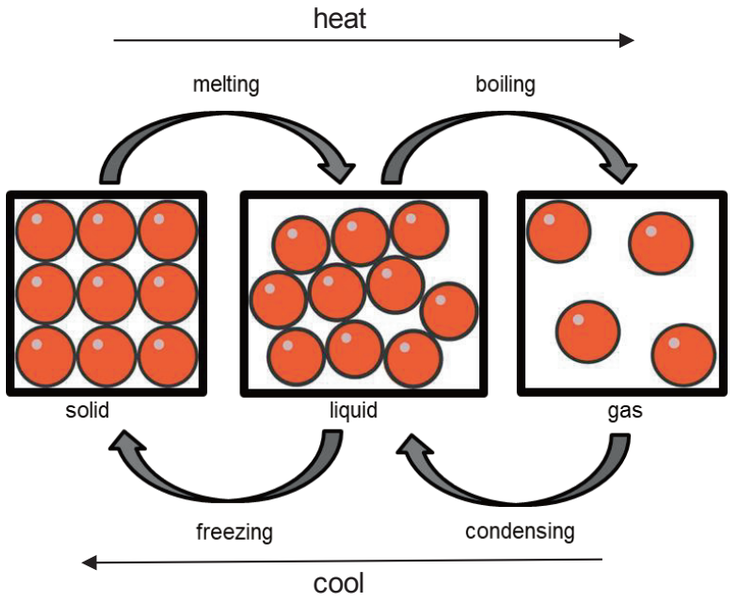
2. Particle Model	
2.13	Draw a particle model for a solid, liquid and gas



solid liquid gas

2. Particle Model		
2.1	What is a particle?	An incredibly tiny part of matter
2.2	What holds the particles in a solid together?	Strong forces of attraction
2.3	How would you describe the arrangement of particles in a solid?	Particles are touching in a regular arrangement
2.4	How would you describe the movement of particles in a solid?	They vibrate about fixed positions
2.5	Why can't solids flow?	The forces of attraction between the particles is too strong
2.6	How would you describe the arrangement of particles in a liquid?	Particles are touching in an irregular arrangement
2.7	How would you describe the movement of particles in a liquid?	Particles are not held in fixed positions and can move around each other
2.8	How would you describe the arrangement of particles in a gas?	Particles are widely spaced apart and are randomly arranged
2.9	How would you describe the movement of particles in a gas?	Particles move quickly in straight lines and in random directions
2.10	Why can liquids and gases flow?	The forces of attraction between the particles is weak
2.11	Why do gases not have a fixed volume?	Particles move quickly and collide with the walls of the container
2.12	Which state of matter has the highest density?	Solid
2.13	Which state of matter has the lowest density?	Liquid

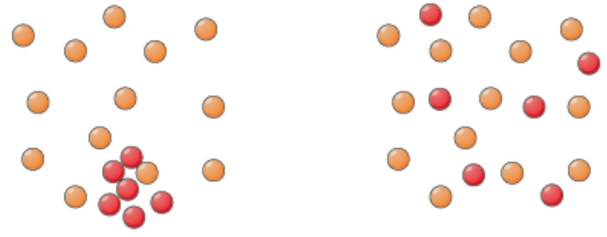
3. Changes of State		
3.1	How can you change the state of a substance?	By heating or cooling it
3.2	Are changes of state reversible or irreversible changes?	Reversible
3.3	Name the changes of state that occur in substances when they are heated and cooled	



3.7	What effect will heating have on the arrangement of particles in a substance?	Particles gain energy, move more and overcome the forces of attraction
3.8	What effect will cooling have on the arrangement of particles in a substance?	Particles lose energy, move less and the forces of attraction become stronger

4. Melting and Boiling Points		
4.1	What is meant by the melting point of a substance?	The temperature a substance changes from a solid to a liquid (or liquid to a solid)
4.2	What is meant by the boiling point of a substance?	The temperature a substance changes from a liquid to a gas (or gas to a liquid)
4.3	What is the melting point of water?	0°C
4.4	What is the boiling point of water?	100°C
4.5	What temperature is room temperature?	20°C to 25°C

5. Diffusion		
5.1	What is diffusion?	The movement of particles from an area of high concentration to an area of low concentration until they are evenly spread out
5.2	In which states of matter can diffusion occur? Why?	Liquids and gases, because the particles are able to move around each other
5.3	In which state of matter will diffusion occur the fastest?	Gas
5.4	Draw a diagram to show the diffusion of a substance in a gas	



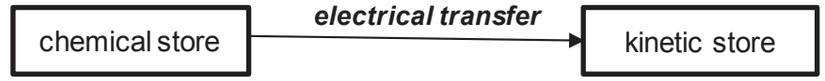
Before diffusion

After diffusion

1. Energy and Energy Stores		
1.1	What is energy?	The ability to do work
1.2	Energy is conserved. What does this mean?	Energy can be stored or transferred but cannot be created or destroyed
1.3	What is energy measured in?	Joules (J)
1.4	Give five examples of energy stores	Kinetic, chemical, thermal, elastic, gravitational
1.5	What store of energy would an object have if it was moving?	Kinetic
1.6	What store of energy does a fuel have?	Chemical
1.7	What store of energy increases with temperature?	Thermal
1.8	What store of energy would a stretched or extended object have?	Elastic
1.9	What store of energy would an object have when it is raised above the ground?	Gravitational
1.10	Give an example of an object with a kinetic store of energy	A moving car
1.11	Give two examples of objects with chemical stores of energy	Batteries, food
1.12	Give an example of an object with a large thermal store of energy	A cup of tea
1.13	Give two examples of objects with elastic stores of energy	A stretched elastic band, a squashed football
1.14	Give an example of an object with a gravitational store of energy	A box on a high shelf

2. Conservation of Energy		
2.1	What store of energy decreases when a ball is dropped from above the ground?	Gravitational
2.2	What store of energy increases when a ball is dropped from above the ground?	Kinetic
2.3	What stores of energy are changing when a rollercoaster rolls down the track?	Gravitational decreases, kinetic increases
2.4	What stores of energy are changing when a remote-controlled car starts moving?	Chemical decreases, kinetic increases
2.5	What is meant by dissipated energy?	When energy is transferred to a non-useful store (wasted energy)
2.6	In most cases what is the cause of dissipated energy?	Friction

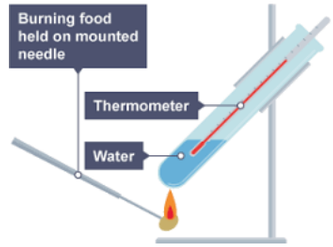
3. Energy Transfers		
3.1	Name four ways energy can be transferred	Electrically, mechanically, by heating and by radiation
3.2	What type of energy transfer involves charge flowing through a circuit?	Electrical
3.3	What type of energy transfer involves forces acting on the object?	Mechanical
3.4	What type of energy transfer involves movement of energy from a hotter object to a cooler object?	Heating
3.5	What type of energy transfer involves waves (e.g. sound or light)?	Radiation
3.6	Draw an energy transfer diagram for battery-powered toy train	



4 and 5. Food as a Store of Energy		
4.1	What store of energy is in food?	Chemical
4.2	When we eat food energy is transferred to what stores?	Thermal and kinetic stores
4.3	How many joules are in one kilojoule (1kJ)?	1000J
4.4	Which types of food have the greatest store of energy?	Fatty foods
4.5	When food is burnt there is a transfer of energy between which stores?	Chemical to thermal

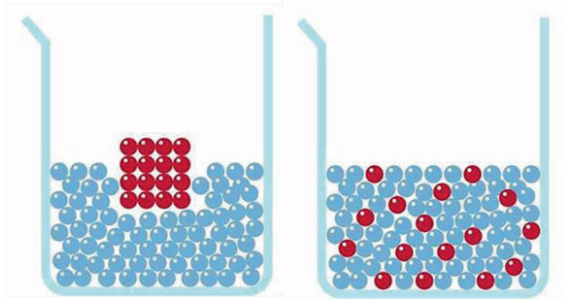
6. Temperature		
6.1	What is the unit for temperature?	Degrees Celsius ^{o}C
6.2	How can temperature be measured?	With a thermometer
6.3	What is meant by temperature of a substance?	The average energy of the particles in the substance
6.4	What effect will increasing temperature have on the movement of particles in a solid?	Particles will gain energy and vibrate more
6.5	What effect will increasing temperature have on the movement of particles in a liquid or a gas?	Particles will gain energy and move more
6.6	Why does a cup of tea left on the side go cold?	Energy is transferred from the hot cup of tea to the cool surroundings until they reach the same temperature
6.7	What is meant by thermal equilibrium?	When there is no transfer of energy by heating between objects because they are at the same temperature

4 and 5. Food as a Store of Energy	
4.6	Draw a labelled diagram showing how you could compare the energy content in different crisps

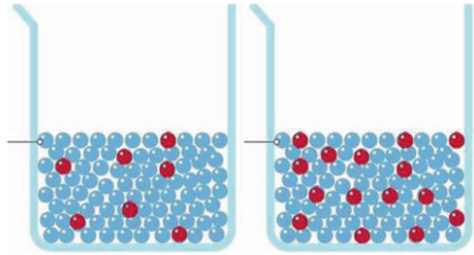


7. Conduction		
7.1	What type of energy transfer is conduction?	Heating transfer
7.2	In which state of matter does conduction occur?	Solid
7.3	Why can conduction not occur in liquids and gases?	The particles are not arranged close enough together
7.4	During conduction, how is energy transferred?	- Energy is transferred to the kinetic store of the particles - The particles vibrate more - The vibrations cause nearby particles to vibrate - Energy is transferred through the vibrations
7.5	Name a material that is a good thermal conductor	Metal
7.6	Name a material that is a poor thermal conductor	Plastic or glass
7.7	What do you call a material which is a poor thermal conductor?	An insulator

1. Dissolving and Solutions		
1.1	Is dissolving a physical or chemical change?	A physical change
1.2	What is a solute?	The substance that dissolves to make the solution
1.3	What is a solvent?	The substance dissolving the solute
1.4	What is a solution?	A mixture of a solute that has been dissolved by a solvent
1.5	What happens to particles during dissolving?	- Particles of the solvent collide with particles of the solute, surrounding them - Particles of the solute gradually move away from each other - Until the particles are evenly spread through the solvent.
1.6	What happens to the mass of solvent and solute during dissolving?	The mass of the solvent and solute before and after dissolving stays constant
1.7	What happens to the volume of the solvent during dissolving and why?	The volume of the solvent remains constant. Because the solute particles fit into gaps between the solvent particles.
1.8	What is meant by a soluble substance?	A substance which is able to dissolve
1.9	What is meant by an insoluble substance?	A substance which is unable to dissolve
1.10	Draw a particle diagram to show dissolving	



2. Concentration		
2.1	What is meant by the concentration of a solution?	The mass of solute dissolved in 1000cm^3 of solvent
2.2	What are the units for concentration?	g/cm^3
2.3	What is the difference between a concentrated and dilute solution?	In a **concentrated** solution, there are more particles of solute per 1000cm^3 than in a **dilute** solution
2.4	Draw a particle diagram to show a concentrated solution and a dilute solution	

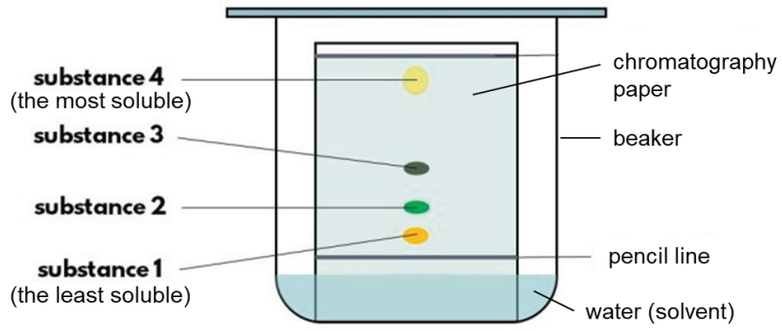


3. Solubility and Saturation		
3.1	What is solubility a measure of?	How much solute can dissolve in a volume of solvent at a specific temperature
3.2	What effect will increasing temperature have on the solubility of a solute?	The solubility will normally increase
3.3	What is meant by a saturated solution?	A solution in which no more solute can dissolve
3.4	What causes a solution to become saturated?	When all the spaces between the solvent particles are occupied

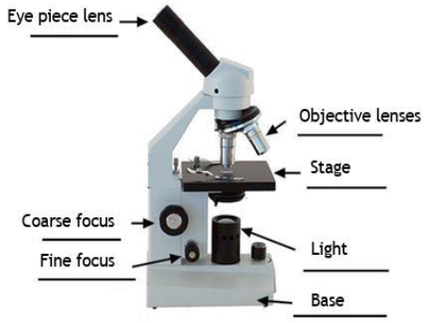
4. Filtration and Crystallisation		
4.1	What is a mixture?	A substance containing different substances that are not chemically joined to each other and which can be separated
4.2	How could you separate an insoluble solid from a liquid?	Filtration
4.3	What equipment would you need to carry out filtration?	Filter paper, filter funnel, conical flask
4.4	What is the solid left behind in the filter paper called?	Residue
4.5	What is the name of the liquid collected after filtration has taken place?	Filtrate
4.6	How do we separate a soluble solid from a solution?	Evaporation
4.7	What equipment would you need to carry out the evaporation process?	Evaporating basin, Bunsen burner, tripod
4.8	What is crystallisation?	The process of producing crystals from a solution by evaporating the solvent

5. Distillation		
5.1	What process would you use to separate a solvent from a solution?	Distillation
5.2	How is distillation carried out?	The solution is heated, causing the solvent to evaporate and turn into a gas. The gas is cooled and condenses back into a liquid which is collected.
5.3	What equipment is used for distillation?	Round bottomed flask, Bunsen burner and Liebig condenser
5.7	What is left in the round bottomed flask after distillation?	The solute

6. Chromatography		
6.1	What is the purpose of chromatography?	A method to separate mixtures of soluble substances
6.2	What examples of substances can be separated using chromatography?	Food colourings, inks, dyes or plant pigments.
6.3	What is a chromatogram used for?	To identify the soluble substances in a mixture
6.4	In chromatography, what is the purpose of the water?	To act as the solvent
6.4	What causes different soluble substances to move different distances during chromatography?	Due to differences in their solubility (their ability to dissolve). The further the distance, the greater the solubility.
6.7	Why do we draw the start line on a chromatogram in pencil?	The pencil line is insoluble in water
6.8	Draw a diagram to show chromatography	



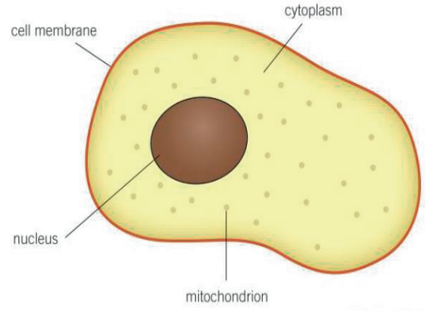
1. Observing Cells		
1.1	What is a cell?	The smallest unit of life and the building blocks for all organisms.
1.2	Why are microscopes needed to see cells?	Because cells are very small
1.3	Label the parts of a microscope	



1.4	How would you find the total magnification of a light microscope?	Multiply the eyepiece lens magnification by the objective lens magnification
1.5	Where should you place a slide on the microscope?	On the stage
1.6	Which objective lens should you begin with when using a microscope?	The lowest power objective lens
1.7	How can you adjust the position of the stage on a microscope?	By turning the coarse focus dial
1.8	How can you bring the object on the slide into better focus?	By turning the fine focus dial

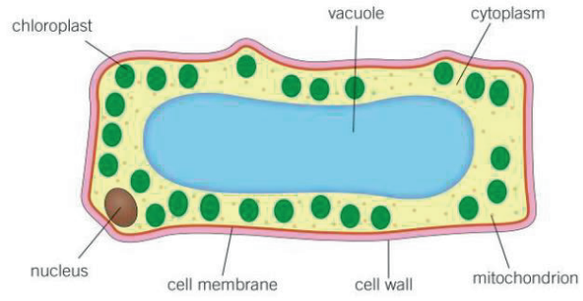
2 and 3. Observing Cells		
2.1	What is the purpose of dropping iodine or methyl blue on top of the cells on a slide?	To stain the cells

4. Animal Cells	
4.1	Draw and label an animal cell



4.2	What is the function of the nucleus?	To control the cell and to store genetic information
4.3	What is the function of the cytoplasm?	To be the site of most chemical reactions in the cell
4.4	What is the function of the cell membrane?	To act as a barrier around the cell and to control what comes in and out of the cell
4.5	What is the function of the mitochondria?	The site of a chemical reaction called respiration which transfers energy for the organism

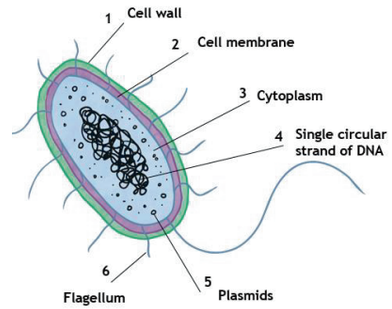
5. Plant Cells		
5.1	Name four structures found in both animal and plant cells	Nucleus, cell membrane, cytoplasm and mitochondria
5.2	Name three structures that are found in plant cells and not animal cells	Cell wall, vacuole, chloroplasts
5.3	What is the function of the cell wall?	To strengthen the cell and provide support
5.4	What is found in the vacuole of a plant cell?	Cell sap
5.5	What is the function of the vacuole?	To keep the cell firm
5.6	What is the function of chloroplasts?	The site of photosynthesis which allows plants to make their own food using sunlight
5.7	Draw and label a plant cell	



6. Levels of Organisation		
6.1	What is a multicellular organism?	An organism made up of many cells
6.2	What is a tissue?	A group of cells working together
6.3	What is an organ?	A group of tissues working together
6.4	What is an organ system?	A group of organs working together
6.5	What is a specialised cell?	A cell which is designed to carry out a particular function
6.6	Name four examples of specialised cells	Nerve cells, red blood cells, sperm cells, root hair cells
6.7	Name three examples of tissues and their function in the organism	• Nervous tissue which is made of cells that transmit messages around the body • Muscle tissue which is made of cells which contract to make the body move • Xylem tissue which is made of cells which form a tube to carry water in the plant
6.8	Name three examples of organs and their functions in the human body	• The heart to pump blood • The stomach to digest food • The brain to control the body
6.9	Name two examples of organs and their functions in the plant	• The leaf to absorb sunlight • The roots to anchor the plant into the ground and to take up water and minerals from the soil
6.10	Name three examples of organ systems and their functions in the human body	• The circulatory system to transport materials around the body • The respiratory system to take in oxygen from the air and remove carbon dioxide from the body • The reproductive system to produce new organisms

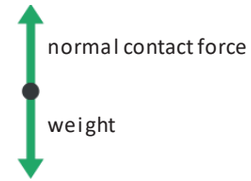
7. Movement of Substances		
7.1	Name two substances all cells in the body require	Glucose and oxygen
7.2	Name an example of a waste product produced by cells	Carbon dioxide
7.3	In the body, how are substances delivered to and taken away from the cells?	By the blood
7.4	How do substances move in and out of cells?	By diffusion

8. Unicellular Organisms		
8.1	What is a unicellular organism?	An organism made of only one cell
8.2	Name three examples of unicellular organisms	Amoebas, euglenas and bacteria
8.3	What is the function of the flagella in unicellular organisms?	Tail-like structures which help them move
8.3	Name two ways amoebas are able to survive	- No fixed shape and can move by changing the shape of the body - Eat plant cells and bacteria by engulfing
8.4	Name three ways euglenas are able to survive	- Contain chloroplasts to make their own food by photosynthesis - Have an eye spot to detect light - Have flagella to move
8.5	How are bacterial cells different to animal and plant cells?	They have no nucleus, the genetic information (DNA) is free in the cytoplasm
8.6	Draw and label a bacterial cell	

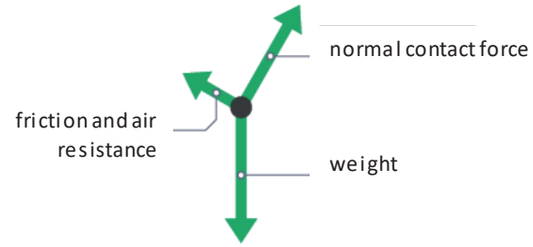


1. Forces and their Effects		
1.1	What is a force?	A push or a pull
1.2	What is the unit of forces?	Newton (N)
1.3	Which scientific instrument is used to measure forces?	Newtonmeters
1.4	When a force acts on an object it can cause the object to change in what ways?	Speed, direction or shape
1.5	What is a contact force?	Forces acting when two objects are touching
1.6	What is a non-contact force?	Forces acting when objects aren't touching
1.7	Name five contact forces.	Friction, air resistance, upthrust, normal contact force, driving forces
1.8	Name two non-contact forces	Gravity, magnetism
1.9	What is the name of the force that resists motion due to two interlocking surfaces?	Friction
1.10	What is the name of the force that exists when objects collide with air particles?	Air resistance
1.11	What is the name of the force that exists which causes an object in a liquid or gas to be pushed up?	Upthrust
1.12	What is the name of the force that acts at right angles to the surface that an object is touching?	Normal contact force
1.13	What is the name of the force that causes an object to move in a set direction?	Driving force
1.14	What is the name of the attractive force that acts between two masses?	Gravity
1.15	What is weight?	A force that acts on an object due to gravity
1.16	What is the name of the force that acts between magnets?	Magnetic force
1.17	What does the arrow in a force diagram represent?	Size and direction of a force

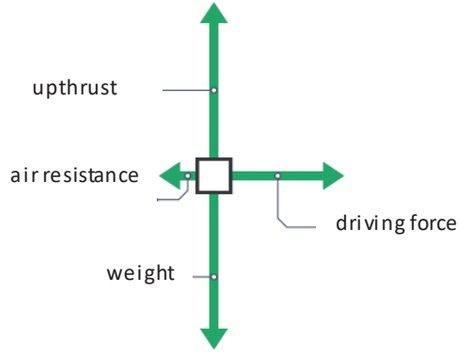
1. Forces and their Effects	
1.18	Draw a free body diagram to show the forces acting on a book on a table



1.19	Draw a free body diagram to show a skier skiing down a hill (from top left of the page to bottom left of the page)



1.20	Draw a free body diagram to show a boat accelerating (getting faster and faster)



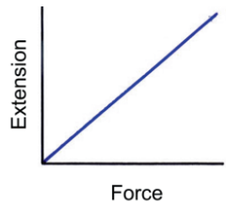
2. Work Done		
2.1	What is work done?	A measure of how much energy is transferred from one store to another
2.2	When is work done?	When a force moves an object over a distance against a resistive force (e.g. gravity or friction)
2.3	Why is lifting a box off the ground an example of work done?	A force is used to move the box a vertical distance against the force of gravity
2.4	Why is sliding a heavy book across the table an example of work done?	A force is used to move the book a horizontal distance against the force of friction
2.5	What is the unit for work done?	Joules (J)
2.6	If 1J of work is done, what does this mean?	A force of 1N causes a movement of 1m
2.7	What is the equation to calculate work done?	Work done = force x distance (W = F d)
2.8	How many metres are in 1km?	1000m
2.9	How many cm are in 1m?	100cm

4. Stretching and Squashing		
4.1	What is deformation?	When a force causes an object to change shape
4.2	Name two ways objects can be deformed	Objects can be stretched or squashed
4.3	What causes compression?	Squashing an object
4.4	What causes tension?	Stretching an object

3. Balanced and Unbalanced Forces		
3.1	What is meant by a balanced pair of forces?	When forces acting on an object are the same size but in opposite directions
3.2	What does stationary mean?	An object that is not moving
3.3	If an object is stationary, are the forces acting on the object balanced or unbalanced?	Balanced (they are in equilibrium)
3.4	If an object is travelling at constant speed, are the forces acting on the object balanced or unbalanced?	Balanced (they are in equilibrium)
3.5	If the forces on an object are unbalanced, what will happen to the object?	It will accelerate (get faster and faster) or decelerate (get slower and slower)
3.6	What is a resultant force?	The overall force acting on an object which has the same effect as all the forces combined.
3.7	If more than one force is acting on an object in the same direction, how do you find the resultant force?	By adding the forces together
3.8	If there are forces acting on an object in opposite directions, how do you find the resultant force?	By finding the difference between the size of the forces

5. Springs		
5.1	What is meant by the extension of an object?	A measure of how much an object stretches when a force is applied
5.2	How can you calculate the extension of an object?	Extension = stretched length - original length
5.3	What is meant by elastic deformation?	When an object is stretched but can return to it's original length/shape
5.4	Give an example of an object that can elastically deform	A spring
5.5	Name the two forces acting on a spring when masses are added to the end of the spring	Weight acting downwards Tension acting upwards

6. Extension of a Spring		
6.1	What effect does increasing the force applied to a spring have on the extension of the spring?	Increases the extension of the spring
6.2	If the force applied to a spring is doubled, what effect will this have on the extension of the spring?	The extension will also double
6.3	Draw a sketch graph to show the relationship between force and extension of a spring	



6.4	What is meant by the elastic limit of a spring?	When too much force is applied and the spring cannot return to its original length/shape

7. Friction		
7.1	What effect will the force of friction have on the motion of an object?	It will slow it down
7.2	What is the cause of friction?	When two surfaces interlock, the more the surfaces interlock, the more friction there is
7.3	Give one way friction can be useful	Stops you slipping when you walk
7.4	What effect does friction have on the temperature of the surfaces in contact?	It causes the surfaces to heat up and increase in temperature
7.5	At the end of a drive why do the tyres of the car feel warm?	Friction between the moving tyre and the road cause an energy transfer to the thermal store of the tyres
7.6	How can friction be reduced?	By using lubrication (e.g. oil)

8. Drag Forces		
8.1	Name two examples of drag forces	Air resistance and water resistance
8.2	What causes drag forces?	Particles in the air and water resisting motion
8.3	In what direction do drag forces act?	In the opposite direction to motion
8.4	Why do drag forces slow objects down?	The particles in the air or water come into contact with the object and exert a force in the opposite direction to its motion
8.5	How can drag forces be reduced?	Through streamlining
8.6	How can changing the shape of an object reduce drag?	By reducing the number of particles the object comes into contact with

Saludos		Basic greetings
1.1	¡Hola!	Hello!
1.2	Buenos dias	Good morning!
1.3	Buenas tardes	Good evening!
1.4	Buenas noches	Good night!
1.5	¡Adios!	Goodbye!

Preguntas y respuestas		Key questions & answers
1.6	¿Qué tal?	How are you?
1.7	Bien, gracias	I am well, thank you!
1.8	Regular	So so
1.9	Fatal	Awful
1.10	¿Cómo te llamas?	What is your name?
1.11	Me llamo…	My name is….
1.12	Dónde vives?	Where do you live?
1.13	Vivo en….	I live in…
1.14	¿Cuántos años tienes?	How old are you?
1.15	Tengo……años	I am …. years old
1.16	¿Cuándo es tu cumpleaños?	When is your birthday?
1.17	Mi cumpleaños es el…..	My birthday is on the ….

Animales		Pets
1.17	Tengo…	I have…
1.18	Una cobaya	A guinea pig
1.19	Un conejo	A rabbit
1.20	Un gato	A cat
1.21	Un perro	A dog
1.22	Un pez	A fish
1.23	Un ratón	A mouse
1.24	Una serpiente	A snake
1.25	No tengo mascotas	I don't have pets

Meses		Months
1.26	Enero	January
1.27	Febrero	February
1.28	Marzo	March
1.29	Abril	April
1.30	Mayo	May
1.31	Junio	June
1.32	Julio	July
1.33	Agosto	August
1.34	Septiembre	September
1.35	octubre	October
1.36	noviembre	November
1.37	diciembre	December

Los numeros			Numbers
1	uno	16	dieciseis
2	dos	17	diecisiete
3	tres	18	dieciocho
4	cuatro	19	diecinueve
5	cinco	20	veinte
6	seis	21	veintiuno
7	siete	22	veintidos
8	ocho	23	veintitres
9	nueve	24	veinticuatro
10	diez	25	Veinticinco
11	once	26	veintiseis
12	doce	27	veintisiete
13	trece	28	veintiocho
14	catorce	29	veintinueve
15	quince	30	treinta

Hermanos		Siblings
1.38	Una hermana	A sister
1.39	Un hermano	A brother
1.40	Una hermanastra	A stepsister
1.41	Un hermanastro	A step brother
1.42	No tengo hermanos	I don't have siblings
1.43	Soy hijo único	I am an only child (boy)
1.44	Soy hija única	I am an only child (girl)

Opiniones		Opinions
1.1	Me gusta	I like
1.2	Me gusta mucho	I really like
1.3	No me gusta	I don't like
1.4	No me gusta nada	I don't like at all
1.5	Odio	I hate

Los dias de la semana		Days of the week
1.6	lunes	Monday
1.7	martes	Tuesday
1.8	miércoles	Wednesday
1.9	jueves	Thursday
1.10	Viernes	Friday
1.11	sábado	Saturday
1.12	domingo	Sunday

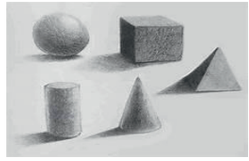
Las estaciones		The seasons
1.13	la primavera	spring
1.14	el verano	summer
1.15	el otoño	autumn
1.16	el invierno	winter

Actividades		Activities
1.17	chatear	to chat
1.18	escribir correos	to write emails
1.19	escuchar música	to listen to music
1.20	jugar a los videojuegos	to play videogames
1.21	leer	to read
1.22	mandar SMS	to send text messages
1.23	navegar por internet	to surf the internet
1.24	salir con mis amigos	to go out with my friends
1.25	ver la television	to watch TV
1.26	bailar	to dance
1.27	cantar karaoke	to sing karaoke
1.28	hablar con mis amigos	to chat with my friends
1.29	montar en bici	to ride a bike
1.30	sacar fotos	to take photoa
1.31	tocar la guitarra	to play guitar

Los deportes		Sports
1.32	hago artes marciales	I do martial arts
1.33	hago atletismo	I do athletics
1.34	Hago equitación	I do horseriding
1.35	hago gimnasia	I do gymnastics
1.36	hago natacion	I do swimming
1.37	juego al baloncesto	I play basketball
1.38	juego al futbol	I play football
1.39	juego al tenis	I play tennis
1.40	juego al voleibol	I play volleyball

El tiempo		Weather
1.41	hace calor	it's hot
1.42	hace frIo	it's cold
1.43	hace sol	it's sunny
1.44	hace buen tiempo	it's nice weather
1.45	hace mal tiempo	it's bad weather
1.46	llueve	it rains
1.47	nieva	it snows

1. Rendering and drawing techniques		
1.1	rendering	Smooth and even colouring without streaks.
1.2	shading	The contrast between light, medium and dark shades.
1.3	outlining	Precise dark outlines for definition.
1.4	perspective	A particular points of view in relation to drawing.
1.5	vanishing point	The point at which objects disappear at distance.
1.6	presentation	Clear, decorative and precise layout.
1.7	accuracy	The quality or state of being correct or precise.
1.8	contrast	The state of being strikingly different from something else.



2. CAD CAM		
2.1	Computer Aided Design (CAD)	Computer software used for designing.
2.2	Computer Aided Manufacturing (CAM)	Computer equipment/process used for manufacturing.
2.3	2D design	Computer software used for designing and controlling CAM machines.
2.4	Millimeters (mm)	The smallest Metric unit.
2.5	Centimeters (cm)	The next unit up from milimeters.
2.6	metric	The correct name for the measuring system most used in the UK.
2.7	grid lock	The lock button in 2D Design that forces 10mm increments.
2.8	step lock	The lock button in 2D Design that forces 1mm increments.

3. Commercial graphics	
successful commercial graphics	Rules to adhere to when designing commercial graphics.
3.1	2-3 columns max.
3.2	colours that contrast.
3.2	Name utilises the amount of space available.

4. Materials knowledge: wood		
4.1	Coniferous trees	The family of trees that have pine leaves and lose their leaves in winter.
4.2	Deciduous trees	The family of trees that have flat leaves and do not lose their leaves in winter (evergreens).
4.3	soft woods	Pine, Larch, Spruce.
4.4	hard woods	Mahogany, Oak, Balsa
4.5	Pine	Softwood commonly used in construction.
4.6	Plywood	Manufactured board commonly used in shelving, wall sheathing, roofing and flooring.
4.7	MDF	Manufactured board commonly used for doors, shelving, flooring and theatre set construction.

Tools:

try square

steel rule

tenon saw

sanding block

sand paper

pilar drill

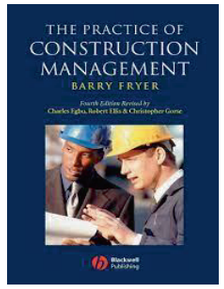
SCAN ME

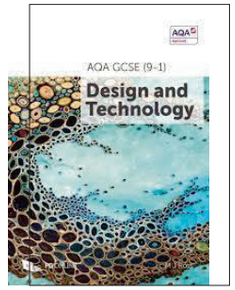
Abandoned Engineering: An exploration into some of the most interesting structures that have been designed and abandoned over time.

SCAN ME

Shifting material and drug delivering nano particles!

Books to read:





TV programs to watch:

Places to visit:

Winchester Science Museum

Legoland

Paultons Park

SCAN ME

Richard Hamond: real truth science - F1.

SCAN ME

CNC Milling & Routing.

Stretch your vocabulary		
1	Melamine	A plastic used chiefly for laminated coatings; particularly work surfaces.
2	sustainability	Maintaining something at a certain rate or level.
3	Knock Down Fittings	Temporary fixings that join two or more materials; particularly chipboard in flatpack furniture.
4	Ferrous Metals	Metals that contain iron and are magnetic.
5	Smart Materials	Materials that respond to their environment e.g. temperature/moisture etc.
6	Stock Forms	Standard sizes of materials.
7	Wasting	Removing material from a solid block to form a useful product.
8	Quality Control	A method to ensure products are fit for purpose.

INSPIRING FUTURES

EXCEPTIONAL CHARACTER

ACADEMIC EXCELLENCE

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