

January - February

Year 7

KNOWLEDGEABLE AND EXPERT LEARNERS



Self
Quizzing

Flash
Cards

Mind
Maps

Brain
Dumps

enjoy learn **succeed**

INDEPENDENT LEARNING BOOKLET

NAME:

TUTOR GROUP:

CONTENTS

- Using Class Charts Instructions
- Accessing SENECA
- Independent Learning log
- Mind Map instructions
- Subject Knowledge Organisers

You will need an A4 application booklet.

HOMEWORK:

- Your teacher will set specific tasks, with a deadline, on Class Charts
- Instructions for your homework and how to access it are in this booklet
- You must complete and hand in the work by the deadline

INDEPENDENT LEARNING EXPECTATIONS AND REWARDS:

- You should complete 1 task per day, 5 days a week.
- The tasks will be set on Class Charts to help you keep track of what you need to do.
- You must bring your ILB and application book to school every day.
- You can choose the subject/topic you want to work on.
- Your tutor will check your ILB regularly to see how you are getting on.
- You will be rewarded for going above and beyond expectations.

SUBJECT KNOWLEDGE ORGANISERS CONTENTS

Computer Science	8
Product design	9
Food Technology	10
Textiles	11
Performing Arts	12
English	13
French	14-15
Geography	16-17
German	18-19
History	20
Maths	21
Music	22
RE	23
Chemistry	24
Physics	25
PSHCE	26

USING CLASS CHARTS



All of your homework will be set by your teachers using the Class Charts System.

You should check Class Charts every day to make sure you are up to date, and that you meet all your deadlines. Below, shows you how to log on and track your homework.

Logging in to Class Charts

1. Enter your email address and password into the fields provided

Access code *
Your access code

Please enter the access code supplied by your teacher:

Remember me

2. Click on the Log in button



3. Enter your date of birth if prompted and click on the OK button

Date of birth

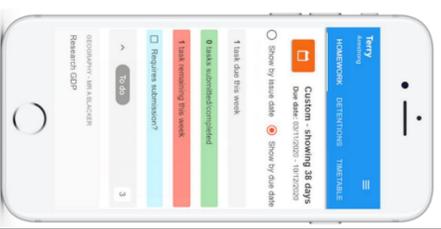
Please enter your date of birth below.

Date of Birth
12/06/2009

OK CANCEL

Homework

- Select the homework tab on our account.
- This will display a list of the homework tasks which you have been given.
- To change the date range for displayed homework tasks, click on the orange Date button.
- To display tasks in the order they are expected to be handed in, click on the Due date button.
- To mark a homework task as completed, view the homework task of your choice in more detail and tick the Completed checkbox.



To view a homework task in more detail, click on the expand icon in the bottom right hand corner of the homework tile. A popup will appear that contains the a description of the homework task, the estimated completion time and any links or attachments that may have been included.

Research GDP
GEOGRAPHY - ERFOS - MRS AABELL

Type: Blended Learning
Issue date: Monday 09/11/2020
Due date: Wednesday 11/11/2020
Estimated completion time: 1 hours

Please write a short paragraph on what GDP is and how it is used.

Keeping track of homework

To track your homework use the three banners above the homework status. This shows the the number of homework tasks that are due that week, how many of those tasks you have completed and how many tasks you still need to complete.

To only see homework tasks that require an attachment submission, tick the checkbox labelled Requires submission.

If you are viewing the Homework tab via a desktop or laptop, expanding a homework status category will display a table overview of each homework task for the selected date range.

To do		1 task due this week		0 tasks submitted/completed		1 task remaining this week		Requires submission?	
Homework	Teacher	Lesson	Issued	Due	Estimated time	Type	Feedback		
<input checked="" type="checkbox"/>	Research GDP	Mrs AABELL	9F/5g	Monday 11/11/2020	1 hours	Blended Learning			
<input checked="" type="checkbox"/>	Write a soliloquy	Mrs AABELL	8f/5a2	Tuesday 17/11/2020	30 minutes	Homework			
<input checked="" type="checkbox"/>	Create a poster on French food	Mrs AABELL	7E1/Fr	Friday 19/11/2020	45 minutes	Homework	Feedback		

Homework attachment submissions

For certain homework tasks, you may be asked by your teacher to upload your work as an attachment. When viewing a homework task in more detail, you will see the Upload attachment button if your teacher is expecting your work to be uploaded. To submit a homework attachment, click on the Upload attachment button and select the files of your choice. Successfully uploaded files will then appear above the button

If your teacher leaves feedback on one of your homework attachments, you will see a Feedback icon appear on the associated homework task.

To view the feedback, click on the expand icon in the bottom right hand corner of the homework tile. Your teacher's feedback will appear directly below your homework attachment

To do

Write a book review

REGREATION - GERRICA - MRS AABELL

Type: Homework
Issue date: Friday 20/03/2020
Due date: Friday 27/03/2020
Estimated completion time: 10

Completed?

Write a 500 word review on the book of your choice.

My attachments

My book review doc

UPLOAD ATTACHMENT

You can upload a maximum of 5 attachments, each up to 250mb in size.

Supported file formats: doc, docx, pdf, xls, xlsx, ppt, pptx, pub, txt, png, jpeg, jpg, gif, rtf, mp3, odt, odp, csv, mp4, mov, m4a, s33

RECREATION - MRS AABELL

Write a book review

Issued: Friday 20/03/2020
Due: Friday 27/03/2020

Feedback

To do

These are homework tasks that you need to complete. Once you have completed them, tick the checkbox

Completed

These are homework tasks that you have ticked as completed but have not been marked by your teacher

Submitted late

Late. These are homework tasks that have been handed in past the deadline.

Not submitted

Not submitted. These are homework tasks that were not handed in on time.

Submitted

Submitted. These are homework tasks that have been handed in on time.

HOW TO ACCESS SENECA



Seneca learning is a free online platform that will help you revise for all your subjects.

1.

Go to
<https://senecalearning.com/en-GB/>

2.

Click 'Log In' at the top right hand corner.



Login

Sign up

3.

Select 'Continue with Microsoft'.



Continue with Microsoft

4.

Enter your school email and password.

5.

Select the course(s) you want to work on

If you need any help accessing SENECA please speak to your class teacher, or Miss Holmes.

You can also scan this QR code for a video walkthrough of how to log in as a student



SCAN HERE





INDEPENDENT LEARNING LOG

MIND MAPS

Expectation this ½ term: Mind maps

1. Create 1 Mind Map a Day



- This should be done once a day , for approximately 20 minutes.
- All your Mind Maps should be evidenced in your application booklet.
- Use this log to track how what subjects you have done (see example)

Week Beginning	Monday	Tuesday	Wednesday	Thursday	Friday
EXAMPLE:	English: KG1 & 2	Science: KG2 & 4	History: KG4 & 5	PSHCE: KG 1 & 2	Drama: KG 1 & 3
5/01/2026					
ILB CHECK (10 Mind Maps) 12/01/2026					
19/01/2026					
ILB CHECK (20 Mind Maps) 26/01/2026					
02/02/2026					
09/02/2026					

MIND MAPS - INSTRUCTIONS

1.



Identify Knowledge

Select a topic you wish to cover.

Decide which type of mind map you are creating

- **Retrieval:** No material
- **Concept:** Material needed

2.



Topics & Subtopics

Place the main topic in the centre of your page and identify subtopics that will branch off.

3.



Branch off

Branch of your subtopics with further detail.

E.g. Key terms, definitions, examples or descriptions.

Try not to fill the page with too much writing.

4.



Review

Is the information on your mind map accurate?

Green pen: Do you need to add anything?

Green pen: Do you need to correct anything?

5.



Revisit it

Use it to help you prioritise your revision; you can **RAG** rate it.

Use it to help you summarise the topic, or use your mind map to teach someone else a topic.

Algorithms Basics

Algorithm	An algorithm is a step by step set of rules or instructions that need to be followed to solve a problem.
Problem Solving	Problem solving is identifying a problem, analysing it, and finding the most effective solution.
Variable	A variable is a stored value that can be changed whilst the program is running.
Flowchart	A graphical way of showing an algorithm.

Input, Process, Output Model

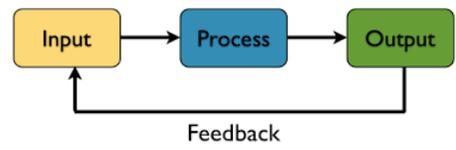
IPO Model	The IPO model is a widely used approach in systems analysis and software engineering.
Input	Inputs provide or give data to the computer.
Process	Processes are a series of actions or steps taken to achieve a particular end.
Output	Outputs information produced by a computer process.

Key Vocabulary

Sequence	Sequence is the order in which instructions are processed.
Selection	Selection is a decision or choice within your computer program.
Iteration	Iteration is when you repeat a set of instructions.
Comparison	> Greater than < Less than == Equal to != Not equal to
Linear Search	Linear searches check each item in order from the start of the list.
Bubble Sort	Bubble sorts compare pairs of items in a list.

Computational Thinking - 4 Steps

Decomposition	Decomposition is breaking down a large problem into smaller problems.
Pattern Recognition	Pattern Recognition involves finding similarities or patterns among decomposed problems.
Abstraction	Abstraction is the process of removing unnecessary detail from a problem and picking out the important bits.
Algorithmic Thinking ∞	Algorithmic Thinking is a logical way of getting from the problem to the solution.



Data Types and Calculation Symbols

Integer	Used to represent a whole number.
Real / Float	A number with a fractional part or a decimal.
String	Used to represent text or a collection of characters.
Calculate	+ Addition - Subtraction * Multiply / Divide

Flowchart Symbols

Start / End	
Input / Output	
Process / Assign	
Decision / IF	
Direction of Data Flow	

1. Process; Tools & Equipment

1	Coping Saw 	Hand held tool used to cut intricate shapes in woodworking
2	Tenon Saw 	Used to cut straight lines in wood, but not deep cuts due to the 'back' on the top of the blade.
3	Hegner Saw 	A piece of machinery used to cut intricate curves and joints
4	Try Square 	Used to check and mark right angles in constructional work
5	File 	Hardened steel in the form of a bar or rod with many small cutting edges raised on its surfaces; used for smoothing or shaping objects.
6	Steel Rule 	Manufactured from stainless steel and features metric or imperial (or both) scales along its length. One end is usually flat whilst the other end is usually round.
7	Bandface 	A vertical bandfacer used for sanding, finishing & finishing tasks. (making surfaces flat).

2. Design Styles

1	Memphis	A design style that focusses on giving objects human features (Anthropomorphic) from simplistic geometric forms
2	De Stijl	A design style that takes its form from primary colours (Red, Blue and Yellow)
3	Art Deco	A design style that takes its influence from 'sunburst motifs' and 'ziggurat' (stepped pyramids)

3. Materials; Softwoods

A term for the wood which is produced by **coniferous** trees, they can take up to **20 years** before these trees can be used.

1	Pine	Furniture
2	Spruce	Roofing
3	Cedar	Cladding

3. Materials; Hardwoods

Hardwoods are usually have **broad leaves**, come from **deciduous** or broad-leaved trees and take many years to grow to maturity before they can be used (**100 Yrs**)

1	Teak	Exterior furniture
2	Oak	Interior furniture / Beams in old cottages
5	Beech	Kitchen items & musical instruments.

3. Materials; Manufactured Boards

Manufactured boards are timber sheets which are produced by **gluing wood layers or wood fibres** together. Often made use of **waste wood materials**

1	Medium Density Fibreboard (MDF)	Wood particles are combining with glue, and formed into panels by applying high temperature and pressure.
2	Plywood	Consists of two or more layers of wood glued and pressed together with the direction of the grain alternating.
5	Chipboard	Made from compressed wood chips and glues, often coated or veneered to give desired appearance

4. Wood Joints

1	Comb/Finger Joint 	Consists of a series of alternate notches and square pins of the same width which are subsequently glued.
3	Dowel Joint 	Used to reinforce Butt Joints by drilling holes and inserting round lengths of wood.
4	Screw Joint 	A type of joint that is fastened by means of a threaded metal rod and a screwdriver.

Sand down all wood
(P80,P120,P240,P320,P400)

Apply **woodstain** as a finish will add **colour** to wood, but still allow the natural appearance of the wood to be seen – You will still see the wood **grain**.

Impact screwdrivers and hand drills are **not** the same. To make a screw joint you will first need a **pilot hole**, then a **countersink**.

1. Equipment

1	Sieve 	We use it to get air into a mixture and get any lumps out of flour.
2	Colander 	Used to drain water out of food e.g pasta, washing vegetables
3	Chopping board 	Used to prepare food on for hygiene and to protect the kitchen surface.
4	Wooden spoon 	Used to stir hot things as it doesn't melt or conduct heat.
5	Peeler 	Takes the skin off food e.g carrots.
6	Cooling rack 	Used to put hot things on to let them cool down faster as the air can get all around.
7	Measuring jug 	Used to measure liquid. Read at eye level for accuracy.
8	Table spoon	A spoon bigger than a teaspoon and dessert spoon.
9	Cooker 	Consists of three parts (cooker, hob and grill)
10	Saucepan 	Used to heat up things on the hob.
11	Garlic crush 	Used to crush peeled garlic cloves to make a paste.

2. Macronutrient components

1	Macronutrients	Macronutrients are the nutrients we need in larger quantities that provide us with energy. E.g. fat, protein and carbohydrate
2	Balanced	A balanced meal includes a variety of foods from different food groups, ensuring you get a wide range of nutrients.
3	Portion size	One portion of fruit/vegetables is roughly the size of your hand
4	Carbohydrates	Two types (sugar & starch). These foods provide us with energy. Wholemeal options aid digestion and keep us feeling full e.g. wholemeal bread
5	Protein & Alternatives	Protein is an essential macronutrient that your body needs for growth, cell repair.
6	Fruit & Vegetables	Fresh, local, fruit and vegetables are best and can be very good value. Eat a variety of 5 different colours to maximise vitamin benefits. Helps immunity against germs.
7	Water 	We should drink 6-8 glasses a day. We lose water through urine and sweat. We get it from food and drink.
8	Oils and spreads	While some fat is essential, we often consume too much saturated fat and need to prioritize unsaturated fats
8	Sugar (not included on Eatwell guide)	Can lead to tooth decay, diabetes 11, obesity and strokes
9	Seasonal	Eating produce (fruits, vegetables, etc.) when it's naturally in harvest and ripe during the particular season it's grown in

3. Kitchen Processes

1	Washing and drying up	Always wash up in hot soapy water and dry thoroughly before putting away.
2	Weighing & Measuring	Weighing and measuring has to be accurate for the recipe to be successful. Grams and litres
3	Coloured chopping boards	Red= raw meat Green= salad & fruit Brown=vegetables Blue= fish Yellow= cooked meat. Used for safe food preparation
4	Hygiene & Safety	Rules to follow to ensure you make the products safely and hygienically

4. Key Vocabulary

1	Food Miles	The total distance food travels from its source (where it's grown) to the plate
2	Sustainable	Sustainable food is food that is grown and produced in ways that are good for the environment, good for people, and good for animals.
3	Temperature control	Changing the temperature to ensure your food to cooked correctly. High for boiling and low heat for simmering.
4	Fairtrade	Ensures that people who produce goods e.g. farmers in developing countries, are paid a fair price and have decent working conditions
5	Food miles	The distance food travels from where it is grown to our plates. Represents the CO2 emissions produced.

1. Tools & equipment

1	Pins 	Used to hold pieces of material together before sewing.
2	Needles 	Used to sew material together by hand. In this project for tacking your material before using the sewing machine.
3	Ruler 	Helps you mark out your fabric in straight lines before cutting.
4	Material Scissors 	Scissors that are designed to cut fabric only. Cutting paper with blunt the blades.
5	Tailors Chalk 	A special chalk that is used to mark out material. The chalk rubs away easily without leaving a mark.
6	Thread 	Thread is used to sew material together. It comes in lots of colours and can be used on the sewing machine or with a needle by hand.
7	Tie dye	Restrict method of dyeing fabric. Elastic bands are used to stop the flow of dye from one section of the fabric to the other forming a pattern
8	Sewing Machine 	An electronic machine that sews materials together.

2. Sewing Machine Components

1	Bobbin 	The small circular thread holder that goes in the bottom of the sewing machine to stop your stitches coming undone.
2	Bobbin Case 	Holds the bobbin in place in the sewing machine. Must be put in with the arm to the top.
3	Bobbin Winder 	Located on the top of the sewing machine and used to wind up the bobbin. When clicked in it will stop the sewing machine sewing.
4	Foot Peddle 	Operates the sewing machine, must be out on the floor. DO NOT PULL UP BY THE WIRE.
5	Stitch Selector Buttons 	Changes the style of the stitches. 1 is used for straight stitching.
6	Reverse button 	Puts the sewing machine in reverse. Should be used at the start and the finish of a line of stitching to stop the stitching coming undone.
7	Sewing machine feet (zipper foot) 	A foot that is attached to the sewing machine to sew a zip into fabric.
8	Sewing machine needle plate 	Helps you line up your material correctly and produce a nice even straight stitch.

3. Process; Sewing machine sewing

1	Thread up the sewing machine with the thread you wish to sew with.
2	Bring up the bobbin thread (fishing) Select your stitch.
3	Place your material under the pressor foot and lower the lever at the back to hold in place. Then lower your needle into the fabric.
4	Hold your material steady with both hands and place your foot on the foot peddle. Let the machine take the fabric.
5	Do three stitches forward and three back to lock your thread (tie a knot) then complete your line of stitching repeating the three stitches forward and three back at the end.

4. Materials

1	Denim	A natural fabric that is made from cotton and in some cases elastane (if it has a stretch) Usually dyed using indigo dye
2.	Cotton	A natural fabric that is made from cotton fibres. Can be dyed many different colours.

Key Vocabulary

1	Puller	Metal part of a zip pulled to open and close
2.	Teeth	The interlocking parts of a zip that are raised. They open and close when the puller is moved up and down.
2	Tack stitch	A temporary stitch used to hold fabric in place before you sew on the sewing machine.

Bollywood – What is it?

Origins	Combines two names: Bombay (the city now called Mumbai) and Hollywood. Based in Mumbai, India and is one of the worlds largest film industries.
What does it look like?	A FUSION of Classical Indian dance, folk dances, Jazz, Hip Hop, Arabic and Latin.

KEY VOCABULARY

1	Action	The movement performed
6	Formations	The shape that you and your dancers make in the space. E.g. diamond, circle, zig zag.
7	Gesture	A movement done by the body which is not weight bearing, e.g., clapping, pointing, waving.
8	Warm up	Increases your heart rate so that oxygen travels in your blood faster to your muscles. E.g. Jogging on the spot or star jumps. It also stretches your muscles and mobilises your limbs. E.g. lunges to each side. This prevents injury during and after dancing
9	Fusion	A mix of different dance styles

Choreographic Devices : Ways in which a choreographer makes the movement created look more interesting

1	Levels	Using different areas of space (high, middle, low)
2	Directions	Facing and travelling different wats when performing movements.
3	Formations	Where the dancer stand on stage in relation to others on stage– Creates a pattern
4	Canon	Group of dancers performing a movement one after the other, similar to Mexican wave
5	Unison	Group of dancers performing movement at exactly the same time

DANCE PERFORMANCE SKILLS - DREAMS

1.D	DYNAMICS	How the movement is performed e.g. sharp, soft, heavy and having a variation to suit the dance.
2.R	RHYTHM AND TIMING	Picking out beats in music / Performing movements at the correct time as beat suggests or as other dancers are moving. "Being in time"
3.E	EXECUTION AND COMMITMENT	Making sure you finish off all your movements fully and fully immerse yourself into the mood and your character when performing.
4.A	AWARENESS OF SPACE	Having an awareness (knowing) of where other dancers are in relation to you , maintain formation and knowing the correct pathways to transition from one formation to another. Having An awareness (knowing) of set and props on stage. Important to prevent collisions.
5.M	MOVEMENT MEMORY	Being able to remember the movements choreographed without thinking or stalling.
6.S	STAMINA	Ability to keep going with high energy throughout rehearsal / performance without sowing fatigue.

Bollywood Movements

1	Hamsasya	Place you forefinger and thumb together. Rotate your hands (this is sign of knowledge, peace and meditation).
4	Triple Step / One Two Three step	<u>3 counts</u> Flat of right foot Toes of left foot Flat of right Repeat on left side
5	Limp Step	Put toes of right foot on the floor Press down on toes lifting left foot slightly off the floor Repeat on left foot
6	Side Lunge	Start feet together Lunge to the right with your leg, twisting your body to face the right. Keep your head to facing the front. Bring your feet back to the middle. Do the same on the left.
7	Around the World	Right foot on the floor Place ball of left foot on floor and push off it 4 times so that you turn your body around in a full circle Repeat on left foot
8	Step & Touch	Start feet together Step out to the right Touch ball of left foot on floor next to right Step out to left Touch ball of right foot on floor next to left
9	Turn	Start feet together Take right foot and cross it over in front of left foot Place ball of foot on the floor Simply unwind in a spin (This is all one action)
10	Shrugging Shoulders	Shrug your shoulders up and down <u>Progressions</u> 1) Gradually lift/raise arms up above shoulders 2) Can you do any of this at double speed?
11	Arm Pulse / Sprinkler	Put one arm behind your head and the other out to the said. Then pulse out and in.
12	Adja	A gesture where the palms face the ceiling and the fingers move inwards as if saying "come here".

Conventions of a Comedy play

1	The struggle of young lovers	The lovers of the play overcome hurdles to be together.
2	Mistaken identities and disguises	Twins are often mistaken for each other, and characters are hidden behind disguises.
3	Separation and reconciliation	Characters are often separated at the start of the play, but become reunited by the end.
4	Comical servants and fools	These characters often complete tasks incorrectly or mock the actions of others.
5	A blocking figure	A typically elderly figure (such as a parent) who prevents the young lovers from being together.
6	Idyllic settings	A magical realm, or a foreign country, where the action takes place.
7	Puns	A play on words.
8	Ends in marriage	The play ends happily, usually with the marriage of key characters.

Conventions of a History play

1	Succession	The moment that a new king or queen takes the throne.
2	The Tudor myth	The belief that the Tudors were chosen by God to rule England.
3	Social commentary	Although these plays explore moments of the past, they are also Shakespeare's way of commenting on what is happening in his society.

13

Conventions of a Tragedy play

1	Tragic arc	A 5-step structure which most tragedies follow.
2	Tragic hero	The hero of the text who has a fatal flaw in their character.
3	Hamartia	This is the flaw in the hero's character. For example, this may be their desire for power or revenge.
4	Internal conflict	A struggle that a character has with their emotions or the decisions they have to make.
5	Comic relief	A moment of humour in the play which provides a contrast to the tragic events.
6	Divine providence	The suggestion that God controls the actions of individuals.
7	Catharsis	The release of the audience's emotions through empathy with the characters.
8	Ends in death	The play ends in the death of several characters, especially the protagonist.

Context

1	Monarchs	Shakespeare wrote plays for two rulers (Queen Elizabeth I and King James I). His acting company was called the 'Lord Chamberlain's Men' until King James became the monarch. At this point, they became the 'King's Men'.
2	Censorship	Before Queen Elizabeth I died in 1603, the nation became concerned about who would succeed her to the throne; she had never married and had no children. In 1599, the 'Bishop's Ban' made it illegal to write about who would be the next monarch!

Key Vocabulary

1	Early modern	The time period in which Shakespeare was writing.
2	First Folio	In 1623, all of Shakespeare's plays were printed as one collection for the first time. This was called the 'First Folio'.
3	Soliloquy	The character speaks their thoughts alone or aloud regardless of any hearers.
4	Aside	Lines spoken by a character that are intended to be heard by the audience but not other characters.
5	Prologue	An opening to the text which may give background information on the characters or key events.
6	Epilogue	A conclusion to the text which comments on the events that have taken place.
7	Dramatic Irony	Some things are revealed to the audience before the characters, increasing tension.
8	Convention	A typical feature. For example, fools are a convention of Shakespeare's comedies.
9	Protagonist	The main character.
10	Monarch	The king or queen of a country.
11	Holinshed's Chronicles	In the early modern period, it was very common for writers to 'borrow' each other's stories. Shakespeare took much of his inspiration from this text.

Sentence Starters

1	à mon avis	in my opinion
2	je dirais que	I would say that

Times of the Day

1	le matin	in the morning
2	l'après-midi	in the afternoon
3	le soir	in the evening
4	la nuit	at night

Who with

1	avec ma famille	with my family
2	avec mon père	with my dad
3	avec ma mère	with my mum
4	avec mon frère	with my brother
5	avec ma soeur	with my sister
6	mon beau père	my step-dad
7	ma belle mère	my step-mum
8	mon demi-frère	my stepbrother
9	ma demi-soeur	my step-sister

Connectives

1	et	and
2	ou	or
3	où	where
4	parce que	because
5	car	because
6	mais	but
7	pourtant	however
8	aussi	also

Frequency

1	tous les jours	every day
2	de temps en temps	from time to time
3	une fois par semaine	once a week
4	deux fois par mois	twice a month
5	ne...jamais	never
6	toujours	always
7	souvent	often
8	quelquefois	sometimes

Possessives

1	mon/ma/mes	my
2	ton/ta/tes	your
3	son/sa/ses	his/her
4	notre/nos	our

Intensifiers

1	un peu	a bit
2	assez	quite
3	très	very
4	vraiment	really
5	beaucoup	a lot
6	trop	too
7	tellement	so
8	plutôt	rather

Describe Myself and Others

1	beau/belle	handsome/beautiful
2	joli/jolie	pretty
3	vieux/vieille	old
4	heureux/heureuse	happy
5	travailleur/travailleuse	hardworking
6	fou/folle	crazy
7	gentil/gentille	kind
8	embêtant/embêtante	annoying
9	méchant/méchante	nasty/mean/naughty
10	paresseux/paresseuse	lazy
11	drôle	funny
12	triste	sad

Adjectives

1	amusant	fun
2	intéressant	interesting
3	passionnant	exciting
4	utile	useful
5	incroyable	incredible
6	ennuyeux	boring
7	fatigant	tiring
8	cher	expensive

Present Tense

1	Je suis	I am
2	J'ai	I have
3	Je fais	I do/make
4	Je vais	I go
5	Je joue	I play
6	Je mange	I eat
7	Je bois	I drink
8	Je lis	I read
9	J'achète	I buy
10	Je trouve	I find
11	Je pense	I think
12	c'est	it's

Near Future Tense – I am going to...

1	Je vais être	be
2	Je vais avoir	have
3	Je vais aller	go
4	Je vais faire	do
5	Je vais jouer	play
6	Je vais regarder	watch
7	Je vais manger	eat
8	Je vais acheter	buy
9	Je vais boire	drink
10	Je vais voyager	travel
11	ce sera	it will be

Introducing Opinions

1	J'aime	I like
2	Je n'aime pas	I don't like
3	J'adore	I love
4	Je déteste	I hate
5	Je préfère	I prefer
6	Je voudrais	I would like

Weather Phrases

1	il fait beau	It's nice
2	il fait chaud	It's hot
3	il fait froid	It's cold
4	il y a du vent	It's windy
5	il y a du soleil	It's sunny
6	il y a du brouillard	It's foggy
7	il y a des nuages	It's cloudy
8	il y a des orages	It's stormy
9	il neige	It's snowing
10	il pleut	It's raining
11	il gèle	It's freezing

Days

1	lundi	Monday
2	mardi	Tuesday
3	mercredi	Wednesday
4	jeudi	Thursday
5	vendredi	Friday
6	samedi	Saturday
7	dimanche	Sunday
8	un jour	one day
9	une semaine	a week
10	une quinzaine	a fortnight

Il y a – there is/are

1	un homme	a man
2	une femme	a woman
3	un garçon	a boy
4	une fille	a girl
5	une famille	a family
6	des enfants	children
7	des gens	people
8	des adultes	adults

Seasons & Compass

1	le nord	the north
2	le sud	the south
3	l'est	the east
4	l'ouest	the west
5	au printemps	in spring
6	en été	in summer
7	en automne	in autumn
8	en hiver	in winter

Prepositions

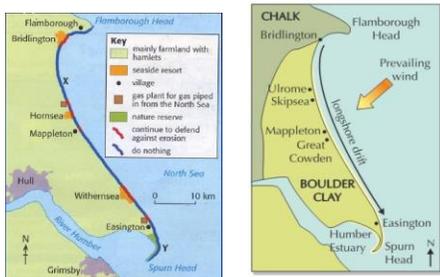
1	dans	in
2	sous	under
3	sur	on
4	entre	between
5	devant	in front of
6	derrière	behind
7	à côté de	next to
8	en face de	opposite
9	loin de	far from
10	près de	near to

A. Holderness Coast

1

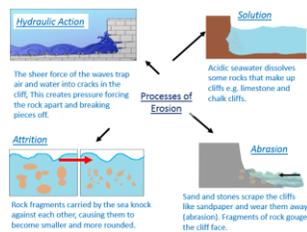
The Holderness Coast is in the North East of England, next to the North Sea. It starts at Flamborough Head and ends at Spurn Point. Along the coast are many physical and human features including cliffs, arches, towns and villages, sand dunes & coastal spits. It is Europe's most rapidly eroding coastline.

Location and Geology



2

Processes of erosion



3

Processes of transport

16

Suspension - fine light materials, sand and silt, are carried along in the flow of the water.
Solution - minerals are dissolved in the sea water and carried along in solution.
Saltation - small pebbles and stones are bounced along the sea bed by the waves.
Traction - large stones and boulders are rolled along by waves. Mainly when there are high energy levels, like a coastal storm.

B. Coastal Landforms

1 Features of Erosion: Cave, arch and stack.

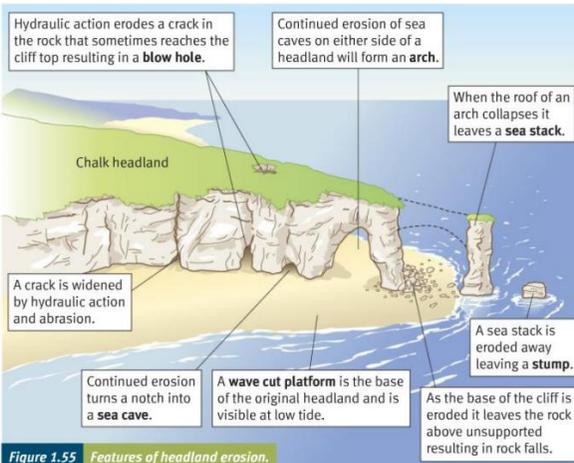


Figure 1.55 Features of headland erosion.

2 Features of Deposition: Sand dunes. To form they need:

1. A large supply of sand.

2. A large flat, exposed beach.

3. Onshore wind to move sand up the beach.



4. Large inter-tidal zone. This allows sand to dry out sufficiently and enables it to be blown up the beach.

5. An obstacle such as driftwood for the dune to form against.

C. Hard Engineering

1

Coastal Defences Include Hard and Soft Engineering			
Hard Engineering		Soft Engineering	
Man-made structures built to control the flow of the sea and reduce flooding and erosion.		Schemes set up using knowledge of the sea and its processes to reduce the effects of flooding and erosion.	
Defence	What it is	Benefits	Costs
Sea Wall	A wall made out of a hard material like concrete that reflects waves back to sea.	It prevents erosion of the coast. It also acts as a barrier to prevent flooding.	It creates a strong backwash, which erodes under the wall. Sea walls are very expensive to build and to maintain.
Gabions	A wall of wire cages filled with rocks usually built at the foot of cliffs.	The gabions absorb wave energy and so reduce erosion. They're cheap and easy to build.	They're ugly to look at and the wire cages can corrode over time.
Rock Armour	Boulders that are piled up along the coast. It's also sometimes called rip-rap.	The boulders absorb wave energy and so reduce erosion and flooding. It's a fairly cheap defence.	Boulders can be moved around by strong waves, so they need to be replaced.
Groynes	Wooden or stone fences that are built at right angles to the coast. They trap material transported by longshore drift.	They create wider beaches which slow the waves. This gives greater protection from flooding and erosion. They're a fairly cheap defence.	They starve beaches further down the coast of sand, making them narrower. Narrower beaches don't protect the coast as well, leading to greater erosion and floods.

D: Coastal Management: Mappleton (Holderness)

1

Parts of Holderness are Protected by Rock Armour and Groynes

In 1991, 450 m of coastline around Mappleton had to be protected at a cost of £2 million, and using over 61,000 tonnes of rocks. Coastal management at Mappleton involved two types of hard engineering:
 1) Placing rock armour (granite boulders) along the base of the cliff to absorb the power of the waves.
 2) Building two rock groynes to trap sand and create a beach to absorb the power of the waves.
 There are also defences at Hornsea (where there is a sea wall and some groynes), and at Withernsea (where there is a sea wall, groynes and rock armour).



2

The Defences Saved Mappleton... but Still Caused Conflicts

The coastal management scheme was successful — the village of Mappleton and the B1242 road are no longer at risk from erosion. However, the management strategy has caused conflicts. The rock groynes prevented sediment moving south along the coast by longshore drift. This has caused increased erosion south of Mappleton, and led to:
 1) Loss of land to the south of Mappleton — especially around Great Cowden's farms and caravan park.
 2) The operation of coastguard and lifeboat services from Spurn Head being under threat due to erosion.
 3) A loss of habitat for wildlife on Spurn Head — less material is coming down the coast to collect at Spurn Head, so it is at risk of being washed away.
 4) In 1999, a 1 km stretch of coast near the gas terminal at Easington having to be protected by rock armour — at a cost of £6.6 million.
 5) Bays forming between the protected areas, and the protected areas becoming headlands. Maintaining the defences in the protected areas is becoming more expensive and may cause conflict.

A. How has the global distribution of ice changed?		
1.	Ice age	A cold period resulting in large formation of ice sheets.
2.	Ice sheet	A large body of ice over 50 000 km ² in extent.
3.	Glacier	A slowly moving mass or river of ice, often in a valley or on a mountain.
4.	Ice coverage	Last ice age was 2 million years ago when global temperatures fluctuated considerably. During the colder glacial periods ice advanced south in the Northern Hemisphere to cover large parts of Europe and North America. Present day ice coverage – two large areas of ice called ice sheets – Greenland and Antarctic. The Greenland ice sheet has an area of 1.7 million km ² and is showing evidence of melting due to rising global temperatures.

B. What causes glaciers to move?		
1.	Accumulation	Glacier ice accumulation occurs through increased inputs of snow and other frozen precipitation.
2.	Ablation	The decrease in the size of the glacier due to increased outputs.
3.	Glacial budget	The glacier budget is the balance between the inputs (accumulation) and the outputs (ablation) of the glacier.

C. How does ice shape the land?		
1.	Abrasion	The process of scraping or wearing something away.
2.	Plucking	Rocks become frozen into the bottom and sides of the glacier. As the glacier moves downhill it 'plucks' the rocks frozen into the glacier from the ground.
3.	Freeze-thaw	Is a process of erosion that happens in cold areas where ice forms

D. What distinctive landforms do glaciers produce?		
1.	Corrie	Formation of a corrie: Snow accumulates in a sheltered hollow on a hillside. Gradually the snow turns to ice and a small corrie glacier is formed. Through the process of rotational slip, the glacier scoops out an over-deepened hollow through abrasion. The ice plucks away material from the back wall as it moves which creates the steep back wall. Reduced erosion at the front of the corrie due to thinner ice forms a raised lip, allowing a tarn to form behind it when the ice melts. An arête is a knife edge point found at the back of a corrie sometimes separating two corries. If you have three corries backing into each other a pyramidal peak is formed.
2.	Glacial trough	A <i>glacial trough</i> is a steep-sided, wide and relatively flat-bottomed valley. The process of abrasion is mostly responsible as the moving glacier grinds into the valley as the glacier is unable to flow around previously existing interlocking spurs so the glacier simply cuts through them forming straight edges truncated spurs . Former tributary valleys, containing smaller glaciers are unable to erode down the same level as the main glacier so many are left perched high above the main valley floor and become hanging valleys where spectacular waterfalls are often found.

E. Why do people visit Glaciated areas?		
1.	Positive impacts	80% of jobs come from tourism to Jungfrau. In 2011, over 800,000 people visited the Jungfrau region, and the region made just short of £745 million in profit from tourism in 2011 alone.
2.	Negative impacts	The old pristine environment that Jungfrau was once famous for is slowly disappearing, and replacing it is ski-runs and chairlifts to keep up with the increasing demand for winter tourists. Many tourists want 'après-ski' (drinking and partying late into the night). Tourists like to relax after they have skied all day, and this can result in drunken tourists and loud music from these bars and clubs which offend the locals and may destroy their culture and traditions.

F. Avalanches: hazards in glaciated environments		
1.	Avalanches	Avalanches are falling masses of snow that can contain ice, soil and rock that move downhill at speeds of 300kmph. They occur naturally in mountain environments and only cause a hazard where there are people. They are found in mountain environments all over the world but are more likely where there is heavy snow, strong winds, slopes over 25degrees but more commonly 30-40 degrees. The Alps would be an example.

Present Tense		
1	Ich bin	I am
2	Ich habe	I have
3	Ich mache	I do/make
4	Ich gehe	I go
5	Ich spiele	I play
6	Ich esse	I eat
7	Ich trinke	I drink
8	Ich lese	I read
9	Ich schwimme	I swim
10	Ich fahre	I travel

Es gibt		
1	ein Mann	a man
2	eine Frau	a woman
3	ein Junge	a boy
4	ein Mädchen	a girl
5	eine Familie	a family
6	die Kinder	children
7	die Leute	people
8	eine Gruppe	friends

Future Tense – I will		
1	Ich werde sein	I will be
2	Ich werde haben	I will have
3	Ich werde machen	I will make
4	Ich werde gehen	I will go
5	Ich werde spielen	I will play
6	Ich werde essen	I will eat
7	Ich werde trinken	I will drink
8	Ich werde lesen	I will read
9	Ich werde schwimmen	I will swim
10	Ich werde fahren	I will travel

Seasons & Compass		
1	Nord	the north
2	Süd	the south
3	Ost	the east
4	West	the west
5	im Frühling	in spring
6	im Sommer	in summer
7	im Herbst	in autumn
8	im Winter	in winter

Introducing Opinions		
1	Ich mag	I like
2	Ich mag ... nicht	I don't like
3	Ich liebe	I love
4	Ich hasse	I hate
5	Ich möchte	I would like
6	gern	like
7	Ich finde	I find
8	Ich denke	I think

Weather Phrases		
1	Es ist sonnig	it's sunny
2	Es ist heiß	It's hot
3	Es ist kalt	It's cold
4	Es ist windig	It's windy
5	Es ist neblig	It's foggy
6	Es ist wolkig	It's cloudy
7	Es ist stürmisch	It's stormy
8	Es regnet	It's raining
9	Es schneit	It's snowing
10	Es donnert und blitzt	There is thunder and lightning

Colours		
1	rot	red
2	blau	blue
3	gelb	yellow
4	grün	green
5	lila	purple
6	braun	brown
7	schwarz	black
8	weiß	white
9	orange	orange
10	rosa	pink
11	hell-	light
12	dunkel-	dark
13	bunt	colourful

Prepositions		
1	in	in
2	unter	under
3	auf	on
4	zwischen	between
5	vor	in front of
6	hinter	behind
7	neben	next to
8	gegenüber	opposite
9	mit	with

Sentence Starters		
1	Meiner Meinung nach	in my opinion
2	Ich finde	I find

Times of the Day		
1	am Morgen	in the morning
2	am Nachmittag	in the afternoon
3	an Abend	in the evening
4	in der Nacht	at night

Who with		
1	mit meiner Familie	with my family
2	mit meinem Vater	with my dad
3	mit meiner Mutter	with my mum
4	mit meinem Bruder	with my brother
5	mit meiner Schwester	with my sister
6	mit meinem Stiefvater	with my step-dad
7	mit meiner Stiefschwester	with my step-sister
8	mit meinem Halbbruder	with my half-brother
9	mit meinen Freunden	with my friends

Connectives		
1	und	and
2	oder	or
3	denn	because
4	weil	because
5	aber	but
6	obwohl	although
7	auch	also
8	jedoch	however

Frequency		
1	jeden Tag	every day
2	einmal pro Woche	once a week
3	manchmal	sometimes
4	immer	always
5	nie	never
6	am Wochenende	at the weekend
7	oft	often
8	am Montag	on Monday
9	Heute	today
10	morgen	tomorrow

Possessives		
1	mein/meine/mein	my
2	dein/deine/dein	your
3	sein/seine/sein	his
4	ihr/ihre/ihr	her

Intensifiers		
1	ein bißchen	a bit
2	ziemlich	quite
3	sehr	very
4	nur	only
5	viel	a lot
6	zu	too
7	wirklich	really
8	nicht so	not so

Adjectives		
1	lustig	funny
2	interessant	interesting
4	nützlich	useful
5	nutzlos	useless
6	langweilig	boring
7	schlecht	bad
8	nervig	annoying
9	toll	great
10	schwierig	difficult
11	einfach	easy

Describe Myself and Others		
1	faul	lazy
2	freundlich	friendly
3	launisch	moody
4	musikalisch	musical
5	sportlich	sporty
6	frech	cheeky
7	niedlich	cute
8	groß	big/tall
9	klein	small/short
10	dick	fat
11	schlank	slim
12	mittelgroß	mid-height

What was the Black Death?

1	What were the symptoms of the Black Death?	<ol style="list-style-type: none"> 1. Painful buboes appeared in the armpit or groin 2. Vomiting and fever 3. Bleeding under the skin caused dark splotches on the body 4. The disease attacked the nervous system 5. Death
2	What caused the Black Death?	<ol style="list-style-type: none"> 1. It was spread by fleas living on rats that were moving through Europe on merchant ships
3	What did Medieval people think caused the Black Death?	<ol style="list-style-type: none"> 1. God sent it as a punishment for sin 2. Bad air (called miasma) caused the disease 3. The bad alignment of the stars (astrology)

Treating the Black Death

1	Where could people go for treatment?	<ol style="list-style-type: none"> 1. People could visit barber surgeons – but they had little training 2. They could visit wise women – they had some herbal knowledge but mixed this with magical practices 3. They could visit a priest for forgiveness
2	What treatments did people try?	<ol style="list-style-type: none"> 1. The most common treatment was prayer 2. Drinking vinegar 3. Bleeding to balance the four humours 4. Sweating out the illness 5. Eating old treacle
3	What extreme treatments did people try?	<ol style="list-style-type: none"> 1. Some highly religious people whipped themselves to punish themselves. 2. As God sent the disease, if they showed they were sorry then God would forgive them

How did the Black Death spread?

1	What were the Silk Roads?	<ol style="list-style-type: none"> 1. The Silk Roads were trade routes from China and the Middle East 2. The Black Death began in China and merchants spread it to countries along the Silk Roads as they travelled through them
2	How did the Black Death arrive in Europe?	<ol style="list-style-type: none"> 1. The Mongol army used diseased dead bodies as weapons at the siege of Kaffa in 1346. 2. Italian sailors fled from the siege and brought the disease back to Italy.
3	How did the Black Death affect Yorkshire?	<ol style="list-style-type: none"> 1. The Black Death arrived in Yorkshire in 1349. 2. York was badly affected and almost 10,000 people died. 3. Wharram Percy in North Yorkshire was abandoned as a result of the Black Death.

Consequences of the Black Death

1	Social	<ol style="list-style-type: none"> 1. 1/3 of the English & Welsh population died 2. It took 250 years for the population to recover
2	Political	<ol style="list-style-type: none"> 1. Peasants started to challenge authority as they believed God had spared them
3	Economic	<ol style="list-style-type: none"> 1. With fewer workers, they could demand higher wages 2. Women had more job opportunities
4	Religious	<ol style="list-style-type: none"> 1. People started to lose faith in the Catholic church and new religious groups appeared

Key Word	Definitions
Apothecary	Someone who creates medicines from herbs and spices to sell
Barber Surgeon	A barber who would offer some medical treatment medieval
Buboe	Painful black swellings that were about the size of an egg. One of the symptoms of the Black Death.
Bubonic Plague	The official name for the Black Death
Clergy	People who are part of the Catholic church e.g. a bishop
Flagellant	Someone who whipped themselves to punish themselves for sin
Four Humours	In the Middle Ages they believed your body was made up for four liquids that needed to be in balance for you to be healthy
Miasma	Bad air – medieval people thought it caused disease
Physician	Type of doctor who studied at university and cost money to see
Pneumonic Plague	The official name for when the Black Death became air-borne
Revolt	When a group rebel against their leader
Silk Roads	Trade routes from China and the Middle East
Wise Woman	A woman who provided healthcare for people in her village for free.

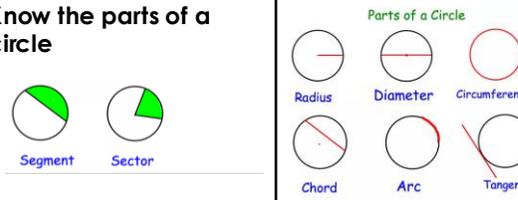
Number – Percentages

1	Find simple percentages of amounts	1% - Divide by 100 10% - Divide by 10 50% - Divide by 2 25% - Divide by 4
2	Use a multiplier to find a percentage	30% = multiply by 0.3 3% = multiply by 0.03
3	Find percentage change	$\frac{\text{Changed by}}{\text{Original amount}} \times 100$
4	Use a multiplier to find percentage increase/decrease (calculator)	Increase 30 by 15% $30 \times 1.15 = 34.5$ Decrease 50 by 10% $50 \times 0.9 = 45$
5	Calculate compound interest	$A = P(1 + i)^n$

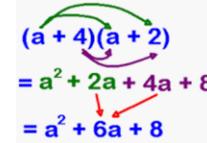
Ratio – Scales

1	Convert between 12 and 24 hour format	12 hour 24 hour 8:15pm = 20:15
2	Find the difference between two times	Calculate the time interval between 11:20 and 15:40 = 4 hours 20 mins
3	Convert units	10mm = 1cm 100cm = 1m 1000m = 1km
4	Convert between imperial/metric units	2.5cm = 1 inch 8km = 5 miles 1kg = 2.2lbs

Geometry – Area and Circumference of a circle

1	Know the parts of a circle	 <p>Parts of a Circle</p> <p>Radius Diameter Circumference</p> <p>Segment Sector</p> <p>Chord Arc Tangent</p>
2	Area & circumference of a circle	$A = \pi r^2$ $C = \pi d$
3	Area & perimeter of a semicircle	$A = \frac{\pi r^2}{2}$ $P = \frac{\pi d}{2} + d$
4	Area of a sector & arc length	$A = \frac{\text{angle}}{360} \times \pi r^2$ Arc length = $\frac{\text{angle}}{360} \times \pi d$

Algebra - Equations

1	Substituting numbers into expressions	Find the value of $5c + 2$, if $c = 6$. Answer: $5 \times 6 + 2 = 32$
2	Solve one and two step equations	Question: $3y + 4 = 22$ Answer: $3y = 22 - 4$ $y = 18 \div 3$ $y = 6$
3	Solve equations with unknowns on both sides	$5x + 6 = 2x + 12$ $3x = 6$ $x = 2$
4	Expanding single brackets	$3(a + 2) = 3a + 6$
5	Expanding double brackets	 <p>$(a + 4)(a + 2)$ $= a^2 + 2a + 4a + 8$ $= a^2 + 6a + 8$</p>

Key Vocabulary

1	Multiplier	A number when multiplied finds the percentage of an amount.
2	Expand	When we multiply to remove the brackets.
3	Substitution	Replacing numbers where the letters are.
4	Sector	The area between two radii and the connecting arc of a circle. A 'pizza slice'.
5	Arc	A section of the circumference of the circle.

1. Notation
Writing music down so players can easily read the pitch and duration of the notes they are supposed to play.

1		Crotchet = 1 Beat
2		Quaver = ½ Beat
3		Minim = 2 Beats
4		Semibreve = 4 Beats
5		Rest = Rest for 1 beat (Crotchet rest)
6		Rest = Rest ½ beat (Quaver rest)
7		Treble Clef = A symbol that is placed on every line of music to show the notes which will be sung or played by voices and instruments that can achieve higher notes.
8		Bass Clef = Signifies low to medium pitches being read on the staff.
9		Stave/ Staff = The Stave is the five lines which the notes are written on.
10		How a chord is drawn on the stave. The notes are stacked on top of each other

2. Chords

1	Chord	A group of 2 or more notes played together
2	Triad	A three note chord made up of the root, third and fifth notes.
3	Chord Sequence	A pattern of chords
4	Major Chord	Happy sounding chord
5	Minor Chord	Sad sounding chord
6	Block Chord	Notes of a chord played all together
7	Broken Chord	Notes of a chord played one at a time
8	Oom pa pa Chord	Lowest note of chord played in left hand and the rest of the chord played in right hand using Oom pa pa rhythm
9	12 bar blues	A popular pattern of chords originating in blues music
10	Intervals	The gaps between the notes of the chord.
11	Root note	Bottom / starting note of the chord

3. Key Vocabulary

1	Dynamics	The volume of the music (Loud or quiet)
2	Rhythm	A pattern on sounds of different lengths and what makes music move and flow.
3	Structure	Gives shape and balance to the music
4	Melody	The main tune
5	Instrumentation	The instruments used in the piece
6	Texture	The layers of instruments. Thick- lots of instruments Thin- A few instruments
7	Harmony	A multiple of pitches being played at the same time.
8	Timing	Playing with the pulse of the music
9	Pulse	The background "heartbeat" of a piece of music.
10	Tempo	The speed the music is played (fast or slow)
11	Pitch	How high or low the note is
12	Tonality	Major (Happy) or Minor (Sad) sounding. Determined by the Key of the music.

Knowledge Group 1		
1	Where did Christianity begin?	Jerusalem in Israel. The Middle East
2	Who founded Christianity?	Jesus Christ
3	What is the Historical lens?	Studying Christianity from a historical perspective
4	What is the theological lens?	Exploring Christianity through beliefs and teachings of the religion.
5	What is the intuitional lens?	Exploring Christianity through commonality and moral teachings.
6	What does Theology mean?	The study of God

Knowledge Group 2		
1	What is the Holy Trinity?	Three person of the Godhead in one
2	Who is the father, what is their role?	God is the Creator and life giver of all things
3	Who is the Son? What is his role?	Jesus. God incarnate who died for humanities salvation
4	What is the holy spirit? What is its role?	Presence of God that dwells within humans
5	What does the Bible teach about the Trinity?	Christians must believe in the father, son and holy spirit
6	How did Jesus Baptism reveal the trinity?	God spoke from heaven to Jesus the son and the holy spirit appeared as a dove

Knowledge Group 3		
1	Name two attributes of God	Benevolent, omniscient, omnipotent
2	What does salvation mean?	Humanity being saved from sin by the death of Jesus
3	What does incarnation mean?	God becoming flesh through Jesus
4	What does atonement mean?	Humans amending their relationship with God
5	Give two reasons Jesus is important to Christians	He teaches them how to live a good life He died for the sins They can go to heaven
6	How did Jesus sacrifice himself?	He allowed himself to be crucified to death to save humanity

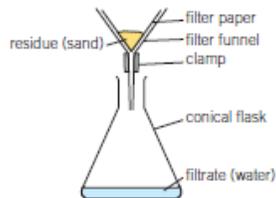
Knowledge Group 4		
1	Give two ways the Holy spirit helps Christians.	Provides comfort Helps them know that God is always with them
2	Give two other names for the holy spirit.	Holy Ghost , The dove Comforter, Spirit of truth
3	Who do the Goats represent?	Sinners who go to hell
4	Who do the sheep represent?	Good people who will be saved
5	What does gaining eternal life mean?	Going to heaven and living forever in the spiritual world with God
6	How do Christians reach the afterlife?	Following Jesus and living a good life

Key words	Definition
Atonement	Humans making amends with God for their sins
Benevolent	All loving
Doctrine	A teaching of the church
God the father	The godhead that is in heaven. He created the world and the people on it.
Historical lens	Studying Christianity as a historical study.
Incarnation	God becoming human
Institutional lens	Exploring Christianity through commonality and moral teachings.
Jesus the Son	The second person in the trinity. The incarnated God on earth.
Monotheism	The belief in one God.
Omnipotent	All powerful
Omniscient	All knowing
Salvation	The idea that humanity is saved by the death of Jesus
The Holy Spirit	The third person of the trinity and the presence of God which dwells in all humanity.
The Holy Trinity	the three persons of the Christian Godhead; Father, Son, and Holy Spirit.
Theological lens	Exploring Christianity through beliefs and teachings of the religion.
Theology	The study of God

Christianity is the worlds largest and richest religion. It has several denominations but shares the same core beliefs. Christianity is the main religion of Contemporary British Society and part of the British Legal system and monarchy. Its influences can be seen in everyday life, for example schools and hospitals were first created by the Church. It follows the teachings of Jesus who was a Jew and has a lot of its history and foundations in Judaism.

Separation Techniques

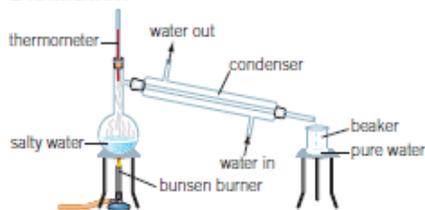
Filtration



Evaporation



Distillation



Key Vocabulary

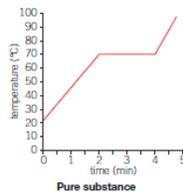
1	Filtration	Separating solid particles from liquid
2	Evaporation	The process of liquid turning into a gas
3	Distillation	Used to separate liquid (solvent) from a mixture and keep the liquid part.

Elements, Atoms, Compounds & Mixtures

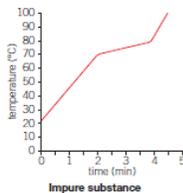
1	Elements	A substance that only contains one type of atom. Each element has a unique chemical system. Elements are arranged in the Periodic Table.
2	Atoms	The smallest part of which an element can be broken down into. Elements contain one type of atom only.
3	Compounds	Formed when two or more different elements chemically bond together. They have different chemical properties to the elements in the compound.
4	Chemical Formulae	Tells us how many atoms of each element are in the compound in relation to each other.
5	Mixtures	More than one type of element or compound that are not chemically bonded together and are easy to separate.

Pure Substances

1	Definition of pure	A substance that consists of one element or compound only.
2	Testing Purity	Melting and boiling point tests can be used to determine how pure a substance is.
3	Pure Substances Have Sharp Melting/Boiling Points	

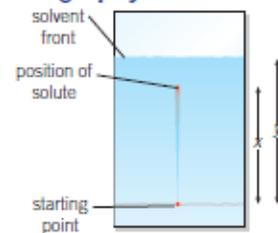


4	Impure substances Melt/Boil Over a Range of Temperatures	
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Chromatography

Chromatography



Chromatography key words

1	Stationary phase	The medium (material) that does not move.
2	Mobile phase	The liquid that is used to move the sample through the stationary phase.
3	Solvent front	The level reached by the top of the moving solvent.
4	Chromatogram	The final result with the substances separated on it.

Solutions key words

1	Solubility	The measure of how much of a substance will dissolve.
2	Soluble	Substances which do dissolve.
3	Insoluble	Substances which do not dissolve.
4	Increasing solubility	Can be increased by a) increasing the temperature b) stirring the solution.
5	Saturated Solution	One where the maximum amount of solute has dissolved in it, no more solute will be able to dissolve.

Solubility key words

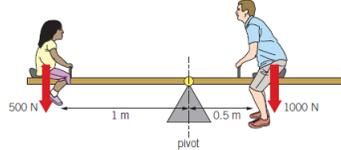
1	Solution	A type of mixture which is made up of two parts.
2	Solvent	The liquid part which the solute has dissolved into.
3	Solute	The part which has dissolved in solution,

What are forces?

1	They can cause things to move, change direction and change shape.	
2	They are measured in Newtons (N), using a newtonmeter.	
3	Forces are either contact or non-contact forces.	
4	Contact	E.g. friction and air resistance.
	Non-contact	E.g. gravity and magnetic forces.
5	Examples	Applied, weight, thrust, friction, air resistance, water resistance, upthrust, lift, normal contact force

Moments

1	A moment is the turning effect of a force. Measured in Newton meters (Nm). Moment (Nm) = force (N) x distance from pivot (m)
2	The size of the moment increases ... a. As the distance from the pivot increases. b. As the size of the force increases.
3	When a see-saw is balanced the clockwise and anti-clockwise moments are equal and opposite.



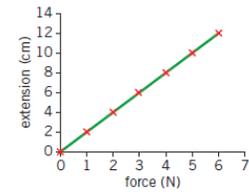
Key Vocabulary

1	Extension	The increase in length of an object such as a spring.
2	Hooke's law	The force applied to a spring is directly proportional its extension.
3	Moment	The turning effect of a force.

Hooke's law

1 A force can be applied to a string to make it stretch e.g. hanging masses on the end of a spring exerts the force of weight on the spring, causing it to stretch.

2 This graph shows how the extension of a spring changes as more force is applied to it. This is a linear relationship and the spring is obeying Hooke's law.



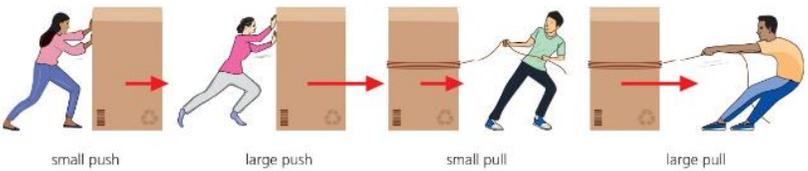
3 Hooke's law – the force applied to a spring is directly proportional to its extension. This means as the force doubles, the extension also doubles and the graph is a straight diagonal line that passes through the origin.

object at start	resultant force	object at end
stationary 	to the right 	starts moving right and accelerates
moving right 	to the right 	keeps moving right and accelerates
moving right 	to the left 	keeps moving right and decelerates
moving right 	downwards 	constant speed but changes direction

Balanced and unbalanced forces

1	Balanced 	Forces acting on an object are the same size but in opposite directions. The object is stationary or moving at a constant speed.
2	Unbalanced 	When the two forces that are acting in opposite directions on an object are not the same size. The object is accelerating or decelerating.
3	To determine the resultant force subtract forces if they act in opposite directions. Add them if they act in the same direction.	

▼ Showing the size and direction of forces using arrows



Personal Safety: Water

1		<p>Keep calm. Float on your back. Gain control of your breathing by taking slow, deep breaths. Float, scull or tread water and signal for help. If possible, swim to safety or something that floats. It is important to keep warm and retain your body heat.</p>
2		Do not use inflatable
3		Dangerous area, no lifeguards, do not swim
4		Do not swim
5		Large surf or high breaking waves
6		Water sports area, do not swim
7		Direction and strength of wind
8		Lifeguards on duty between these flags so it is safe to swim
9		Sudden drop

The science behind: blood donation

1	How many blood donations does the NHS need every day?	5,000
2	How many days' stock of blood does the UK hold, on average, at any time?	5-10
3	For how long can donated blood be stored?	Red blood cells: up to 35 days, Platelets: up to 7 days and plasma: up to 3 years.
4	How long does giving blood take?	A maximum of 15 minutes

Healthy eating: tooth decay

1	What is tooth decay?	Tooth decay is damage that occurs to your teeth, which can lead to cavities or even tooth loss.
2	Foods that are high in sugar	Fizzy, soft, or energy drinks that are not 'no added sugar' versions, Sweets, Chocolate, Desserts, Ice cream, Biscuits, Cakes, Sweet pastries, Flavoured cereals/ cereal bars and yogurts.
3	How many grams of sugar per day should we be limited to?	30g

Healthy vs Inactive lifestyles: Cancer

1	Weight bearing activities	Engaging in weight-bearing activities like running and playing rugby is great for bone health as it makes your bones stronger. While no activities can 100% guarantee prevention, staying active can reduce the risk of getting bone cancer.
2	High levels of fat	Having high levels of fat creates a high risk for several types of cancer, including many organ cancers like liver, stomach and kidney. By managing your weight, you can reduce the risk of developing these cancers.
3	Improved circulation	When your blood is flowing, it also removes waste products that can harm the cells and make them cancerous.

Substance misuse: Drugs

1	What are legal highs?	Legal highs are psychoactive drugs that contain various chemical ingredients, some of which are illegal while others are not. They produce similar effects to illegal drugs like cocaine, cannabis and ecstasy.
2	What do vapes contain?	Vapes contain nicotine as well as the same harmful chemicals found in cleaning products, nail polish remover, weed killer and bug spray. The nicotine in 1 vape can equal 50 cigarettes.
3	What can vaping do?	Leave you with an increased risk of developing depression and anxiety.

Health prevention: Hygiene

1	What does personal hygiene include?	<p>Cleaning your body every day</p> <p>Washing your hands with soap after going to the toilet</p> <p>Brushing your teeth twice a day</p> <p>Covering your mouth and nose with a tissue (or your sleeve) when sneezing or coughing</p> <p>Washing your hands after handling pets and other animals</p>
2	Why is personal hygiene important?	Good hygiene is vital because it helps prevent you and your children from getting or spreading germs and infectious diseases
3	What can be barriers to personal hygiene?	Cost of living (can affect hot showers, toothpaste, shampoo, deodorant) and time

