January – February

Year 8

KNOWLEDGEABLE AND EXPERT LEARNERS

Self Quizzing

Flash Cards

Mind Maps

Brain Dumps

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INDEPENDENT LEARNING BOOKLET

NAME: .....

TUTOR GROUP: .....

CONTENTS

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.

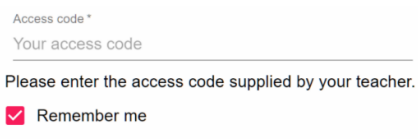
SUBJECT KNOWLEDGE ORGANISERS CONTENTS

USING CLASS CHARTS

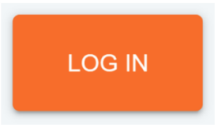
All of your homework will be set by your teachers using the Class Charts System.
You should check Class Charts every day to make sure you are up to date, and that you meet all your deadlines.
Below, shows you how to log on and track your homework.

Logging in to Class Charts

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



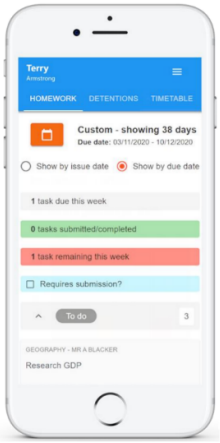
2. Click on the Log in button



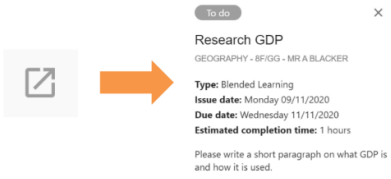
3. Enter your date of birth if prompted and click on the OK button

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.

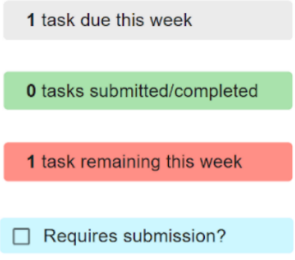


To view a homework task in more detail, click on the expand icon in the bottom right hand corner of the homework tile. A popup will appear that contains the a description of the homework task, the estimated completion time and any links or attachments that may have been included.



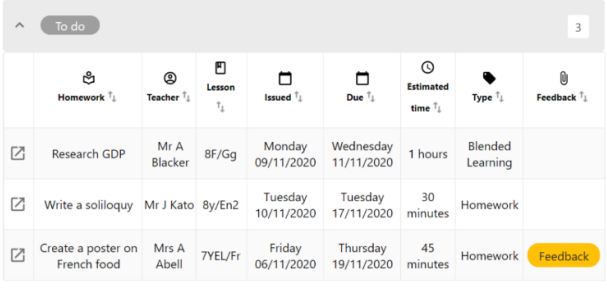
Keeping track of homework

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.

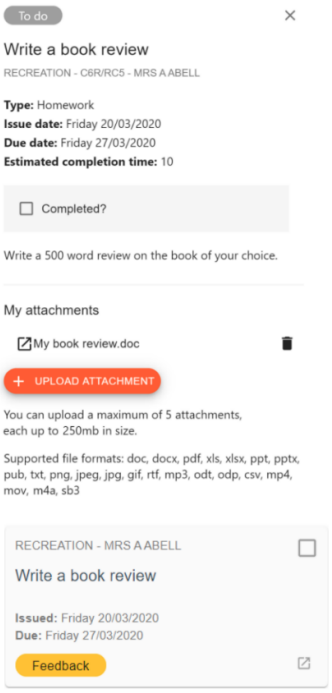
If you are viewing the Homework tab via a desktop or laptop, expanding a homework status category will display a table overview of each homework task for the selected date range.



	Homework	Teacher	Lesson	Issued	Due	Estimated time	Type	Feedback
	Research GDP	Mr A Blacker	8F/Gg	Monday 09/11/2020	Wednesday 11/11/2020	1 hours	Blended Learning	
	Write a soliloquy	Mr J Kato	8y/En2	Tuesday 10/11/2020	Tuesday 17/11/2020	30 minutes	Homework	
	Create a poster on French food	Mrs A Abell	7YEL/Fr	Friday 06/11/2020	Thursday 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
To-Do: These are homework tasks that you need to complete. Once you have completed them, tick the checkbox

Completed
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.

3. Select '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 **R**ate **A**nd **G**rade it.

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

Subject: Computer Science	Topic: Small Basic Programming	Year Group: 8

Data Types

Data Type	Characteristics
Integer (INT)	A whole number
Real/Float (FLOAT)	A number with a fractional part
Boolean (BOOL)	Can take two values, TRUE or FALSE
Character (CHAR)	A single letter, number or symbol
String (STR)	Used to represent text or collection of characters

Mathematical & Compare Operators

Operator	Name and description	Example
+	Addition	2 + 2 = 4
–	Subtraction	4 – 2 = 2
/	Division	8 / 4 = 2
*	Multiplication	4 * 8 = 32
<	Less Than	5 < 3
>	More Than	8 > 2
<=	Less Than or Equal To	7 <= 14
>=	More Than or Equal To	19 >= 26
= or ==	Equal To	12 = 12
!= or <>	Not Equal To	15 != 3

∞

Logical Operators

Operator	Example
AND	if score > 0 AND score < 10
OR	if topic == "Computing" OR topic == "Computer Science"
NOT	while NOT score

Random Number Generation

To randomly generate a number in Small Basic you can use the code below:

```
number = Math.GetRandomNumber(100)
```

Always use the TextWindow.WriteLine command to check if this is working.

```
TextWindow.WriteLine(number)
```

Write & Write Line

Writes text or numbers to the text window. The write command does not append a new line. A new line will be appended to the output if you use the Write Line command.

Read & Read Number

Reads a line of text or reads a number entered by the user from the text window. This function will not return until the user hits ENTER. When you use ReadNumber, the input is restricted to just numbers.

Key Vocabulary

Algorithm	An algorithm is a set of step by step rules or instructions to be followed in order to solve a problem.
Program	A computer program is a set of instructions that can be executed by a computer to perform a specific task.
Variable	A variable is a store of data/information or a memory location that has a name. The value of a variable can be changed whilst the program is running.
Constant	A constant is a store of data/information or a memory location that has a name. The value of a constant can not be changed whilst the program is running,
Sequence	Sequencing is the specific order in which instructions are performed in an algorithm.
Selection	Selection is a decision or question. Selection allows us to include more than one path through an algorithm.
Iteration	Iteration is the process of looping or repeating sections of a program.

Product Design | Container Project | Year Group: 8

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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	**Bandfacer** 	A vertical bandfacer used for sanding, finishing & linishing tasks. (making surfaces flat).

2. Materials; Softwoods

A collective term for the wood which is produced by **coniferous** trees, almost all of which are **evergreen** and cone-bearing trees can take up to **20 years** before these trees can be used.

1	**Pine**	Furniture
2	**Spruce**	Roofing
3	**Cedar**	Cladding
4	**Fir**	Furniture & flooring

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. Materials; Plastics

A collective term for the two types of plastics that exist. Plastics are often referred to as 'polymers'

1	**Thermoplastics**	A thermoplastic is a plastic that can be heated and reheated over and over again. It is particularly useful when it comes to recycling Examples include; Acrylic, Polypropylene and HIPs
2	**Thermosetting plastics**	A thermosetting plastic (AKA a Thermoset) is a plastic that once moulded **CANNOT** be reheated and reshaped. Examples include; Urea Formaldehyde and Epoxy Resin

5. Process; CADCAM

1	**Laser Cutter** 	Works by directing the output of a high-power **laser** through lenses onto a material. Typically woods or plastics
2	**Computer-aided Design (CAD)**	The use of computers to aid in the creation or modification of a design idea. 2D Design / SketchUp.
3	**Computer Aided Manufacturing (CAM)**	The use of software and computer-controlled machinery to automate a manufacturing process. Laser cutter, CNC Lathe, A3 Router.

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

Apply **Danish Oil / Teak Oil** first followed by wax to seal the wood. Enhance its **appearance & protect** it.

Design & Technology; Food	Topic: Multicultural Meals	Year Group: 8

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1. Culinary terminology

1	**Al dente**	How pasta should be cooked – texture should be soft with bite.
2	**Seasoning: Herbs + Spices**	Herbs are generally green and spices are generally orange/brown. They are used to flavour and season food
3	**Root and Shoot method**	Use the claw grip to steady onion. Slice off the root, slice off the shoot and place flat edge on chopping board. Peel the skin and slice
4	**Reduction method**	Heating a sauce to evaporate some of the liquid to make in thicker and more intense flavour
5	**Marinating**	To flavour and tenderise meat by leaving food to soak in a sauce, acid, spices .
6	**Kneading**	Massage/work/squeeze dough. In bread it is to stretch gluten strands
7	**Proving**	Leaving bread to rest to allow the yeast to ferment.
8	**Portion control**	Ensuring each item is the same size
9	**Batter**	Muffin batter is different to cake batter as it should not be over mixed as it causes a tough texture
10	**Roux/all in one**	Methods of making a white sauce.
11	**Gelatinisation**	The process of thickening a liquid using starch.
12	**Simmer**	Temperature just below boiling point

2. Nutrition

1	**Eat Well Guide**	Government guideline for healthy eating.
2	**Excess/ deficiency**	Excess is when too much and efficiency is when not enough is consumed.
3	**Saturated Fat**	Usually animal based savoury and sweet foods. Dairy and meat sources.
4	**NSP - fibre**	Also known as fibre needed for healthy digestion. Can cause constipation if deficient

Key Vocabulary

1	**Multicultural**	When people of different cultures come together to celebrate and share their different traditions
2	**Design Scenario**	Outlines the main details and expectations of the task.
3	**Design Specification**	A checklist of points that your design needs to meet in order to make a successful product
4	**Sensory Qualities**	The taste, smell, texture and appearance of food.
5	**Recipe sequence**	A list of steps to follow to make a dish
6	**SMEE issues**	Social, moral, ethical and environmental issues. Including; red tractor, vegetarianism, GM foods.
7	**Performance review**	Discussing the positives, negatives and areas for improvement

3. Food safety systems

1	**Check for readiness**	Independently checking if the Correct colour/texture and if cooked the internal temperature must be 75'c or above.
2	**Cross contamination**	When bacteria is transferred from one thing to another
3	**Key temperatures**	Freezer -18'c Fridge 1-5'c Danger zone 3-63'c Temperature food needs to reach during cooking 75'c All bacteria killed at 121'c
4	**Temperature probe**	Used to take the internal temp of food. Clean before/ after use. Insert into the centre. Record temp after it has stabilised for 2mins.
5	**High/low risk foods**	Low risks foods: often either high in salt. Sugar, acid and low in moisture. High risk foods provide the perfect environment for bacteria to grow (moist, high in protein, warm)
6	**Safe storage**	It is important to store food safety to prevent it spoiling and food poisoning bacteria growing. Make sure food is sealed properly and fully cooled down before putting into the fridge or freezer.
7	**Food Waste/ Upcycling**	Using leftovers to create a new meal

Design & Technology; Textiles | Topic: Selfie Art | Year Group: 8

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1. Tools & equipment

1	**Free Machine Embroidery foot** 	A foot used on the sewing machine to sew free machine embroidery
2	**Embroidery Thread** 	A thicker thread than machine thread that is shiny. It is used to hand stitch, create images and patterns on fabric.
3	**Embroidery hoop** 	A hoop that holds material taught whilst you sew either by hand or on the sewing machine

2. Sewing Machine Components:

1	**Stitch Selector Buttons** 	Changes the style of the stitches.1 is straight stitch, 2 is zig zag stitch.
2	**Dogs teeth/feed dogs** 	The tracks under the base plate of the sewing machine that pull your material through. These are put down when doing FME.

3. Process: Applique

1. Applique	The technique of attaching one fabric onto another with zig zag stitch around the outside.
2. Zig Zag stitch	A stitch in the shape of a zig zag 
3. Bondaweb	Adhesive backed paper that can be ironed to fabric and peeled away to then iron onto another fabric
4. **Stitch width & length**	Buttons that adjust the stitch width and length to change the shape and size of zig zag. 

4. Materials:

1	**Cotton**	A natural fibre that comes from a cotton plant
2	**Synthetic fibre**	A manmade fibre that comes from oil. E.g. Polyester and Nylon.

5. Process: Free machine embroidery

1	Set up the sewing machine
2	Place your material into an embroidery hoop and make sure it is tight like a drum.
3	Replace the 'normal' foot on the sewing machine with an embroidery foot. 
4	Lower the dogs teeth/feed dogs on the machine by pressing the button at the side. 
5	Place the material and the hoop under the sewing machine foot and lower the needle and foot. Sew and move the embroidery hoop at the same time. Aim for 3-4 times over each line of stitching.

6. ACCESS FM

1	**Access FM**	An Acronym used to analyse products and the work of Artists
2	**Aesthetics**	How the product looks
3	**Cost**	The cost of the product
4	**Customer**	Who it is intended for
5	**Environment**	Is it environmentally friendly?
6	**Safety**	Is it safe?
7	**Size**	Is it a suitable size?
8	**Function**	Does it do the job it was intended for?
9	**Materials**	Are the materials suitable?

7. Process: Tie Dye

1. Wet	Wet the fabric to make the dye easier to absorb when choosing a spiral.
2. Twist	Twist, scrunch or fold your fabric depending on the required pattern.
3. Tie	Tie elastic bands to keep it into this shape.
4. Dye	Submerge into the dye ensuring all the fabric has been covered
5. Iron	Once dry remove the elastic bands and iron the fabric flat.

8. Contextual links/Key names

BANKSY	Banksy is an anonymous British street artist, vandal, political activist, and film director, active since the 90s. His work is based on black, white with a hint of red. He uses stencils to create his work. His work has links to greed, poverty, despair, the obsession with celebrities, the government and war. Banksy has a hidden message in all his pieces.
VILASANA	Victoria Villasana is a Mexican textiles artist known for her unique style of embroidery. She uses photographs of famous people and transforms them using bright coloured embroidery threads that she hand stitches over their images. Villasana's art frequently highlights portraits of well-known figures. She uses bold, colourful threads to bring out their personalities, adding layers of meaning to the images.
HARING	Keith Haring was an American artist whose pop art and graffiti work grew from New York City street culture of the 80s. Harings work was based around animated imagery and often has a continuous black line that links imagery together. His work uses black, white and primary colours. Haring's work represents a youthful nature, innocence, purity, goodness and potentials.

Subject: Performing Arts | Topic: Styles of Dance | Y8

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Key Vocabulary		
1	**Choreography**	The sequence of steps and movements in a dance routine
2	**Choreographer**	The person / people who plan, create and teach the sequence of movements.
3	**Actions**	The individual movements in a dance. The 5 key dance actions are Jump, Turn, Travel, Gesture, Balance

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
6	**Mirroring**	Performing the same movement but facing the opposite direction or using the opposite side of your body to your partner.
7	**Fragmentation**	Chopping up a sequence of movement that has already been created and putting it back together in a different order.
8	**Retrograde**	Performing a sequence of movement in reverse

Contextual Links:
Thriller dance (Michael Jackson):
https://www.youtube.com/watch?v=4V90AmXnguw

You Can't Stop the Beat dance (Hairspray):
https://www.youtube.com/watch?v=9VFw5pD3Z_8&t=51s

Horizon dance (MC dance company): https://www.youtube.com/watch?v=-va6jfz_5LI

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.

Dance Styles		
1	**Jazz (Influenced all three dances)**	A fun, energetic dance style that mixes African and European dance steps. It became popular in the 1930s and often uses big, bold movements.
2	**Hip-Hop (Influenced 'Thriller')**	A street dance style that started in the Bronx in the 1970s. It includes moves like breaking, b-boying, and popping and locking.
3	**1960s Dance (Influenced 'You Can't Stop the Beat'**	A collection of simple, upbeat dances from the 1960s, such as The Twist and The Pony. This dancing became a way to escape stress, feel free, and join in with the youth culture of the time.
4	**Musical Theatre (Influenced 'You Can't Stop the Beat')**	A dance style that mixes jazz, tap, and ballet. It is expressive, dramatic, and often combined with singing to help tell a story.
5	**Contemporary (Influenced 'Horizon').**	A modern, expressive style that grew out of ballet. It uses fluid movements to show emotion and tell stories.
6	**Ballet (Influenced 'Horizon')**	A formal, graceful dance style that began in Italy around the 1500s. Ballet focuses on precise movements and is often used to tell stories through dance.

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Before you start writing think about the **GAPS!**

1	**Form**	What are you being asked to write? The shape, structure and conventions of the letter.
2	**Audience**	Who are you writing for? The people the writer is writing for. The specific readers or listeners they have in mind while writing.
3	**Purpose**	What are you trying to achieve? The reason why the text is being written. The aim or goal of the text.
4	**Style**	Formal or informal? Tone? The attitude of the writer and the way in which it is conveyed. The tone creates the mood, atmosphere and perspectives within the text.

Conventions of a Letter

1	**Address**	Your address and date in the top right of the page. Address of the person you are writing to on the left.
3	**Salutation**	Salutation: e.g. Dear Mrs Smith or Dear Sir/Madam.
4	**Contents**	Now write the contents of your letter using your best ideas and the writer's methods.
5	**Ending**	End your letter with either *Yours sincerely* (if you used Dear Mrs Smith) or *Yours faithfully* (if you used Dear Sir/Madam)
6	**Signature**	Sign your signature at the end of your letter then print your name in capitals.

Temporal Connectives

1	Firstly	**7**	After
2	Secondly	**8**	Shortly
3	Thirdly	**9**	Afterwards
4	Next	**10**	Last
5	Finally	**11**	Eventually
6	Before	**12**	Later

Writer's Methods

1	**Anaphora**	Repetition of a word or phrase at the beginning of successive sentences/phrases.
2	**Temporal Connectives**	Temporal connectives are words/phrases used to tell someone when something is happening.
3	**Declarative**	Declarative sentences make statements, for example: 'The sun rises in the east.'
4	**Triples**	The use of three words or three ideas to reinforce your point.
5	**Antithesis**	Intentional juxtaposition of two contrasting ideas.
6	**Extended Metaphor**	A metaphor that is extended across a sentence, paragraph or whole text.

Subject: French | Knowledge Organiser | Year 8

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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 regarde	I watch
6	Je mange	I eat
7	J'écoute	I listen
8	Je visite	I visit
9	J'habite	I live
10	J'envoie	I send
11	J'achète	I buy
12	Je vois	I see
13	Je lis	I read
14	Je bois	I drink
15	Je prends	I take

Perfect Tense

1	J'ai été	I have been
2	J'ai eu	I have had
3	J'ai fait	I did/made
4	Je suis allé	I went
5	J'ai regardé	I watched
6	J'ai mangé	I ate
7	J'ai écouté	I listened
8	J'ai visité	I visited
9	J'ai habité	I lived
10	J'ai envoyé	I sent
11	J'ai acheté	I bought
12	J'ai vu	I saw
13	J'ai lu	I read
14	J'ai bu	I drank
15	J'ai pris	I took

Near Future Tense – I am going to…

1	Je vais être	be
2	Je vais avoir	have
3	Je vais faire	do
4	Je vais aller	go
5	Je vais regarder	watch
6	Je vais manger	eat
7	Je vais écouter	listen
8	Je vais visiter	visit
9	Je vais habiter	live
10	Je vais envoyer	send
11	Je vais acheter	buy
12	Je vais voir	see
13	Je vais lire	read
14	Je vais boire	drink
15	Je vais prendre	take

Conditional Tense – I would like to…

1	Je voudrais être	be
2	Je voudrais avoir	have
3	Je voudrais faire	do
4	Je voudrais aller	go
5	Je voudrais regarder	watch
6	Je voudrais manger	eat
7	Je voudrais écouter	listen
8	Je voudrais visiter	visit
9	Je voudrais habiter	live
10	Je voudrais envoyer	send
11	Je voudrais acheter	buy
12	Je voudrais voir	see
13	Je voudrais lire	read
14	Je voudrais boire	drink
15	Je voudrais prendre	take

être phrases

1	c'est	it's
2	c'était	it was
3	ce sera	it will be
4	ce serait	it would be

il y a

1	il y a	there is/are
2	il y avait	there was/were
3	il y aura	there will be
4	il y aurait	there would be

Structures with infinitives

1	J'aime aller/faire/télécharger	I like going/doing/downloading
2	Je n'aime pas aller/faire/passer	I don't like going/doing/spending
3	il faut aller/jouer/dormir	you have to go/play/sleep
4	on peut aller/faire/trouver	you can go/do/find

Subject: French | Knowledge Organiser | Year 8

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Sentence Starters

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

Signposting Time Frames

1	l'année dernière	last year
2	avant	before
3	mardi dernier	last Tuesday
4	aujourd'hui	today
6	plus tard	later
7	après	after
8	l'année prochaine	next year

Who with

1	avec ma famille	with my family
2	avec mes amis	with my friends
3	avec mon père	with my dad
4	avec ma mère	with my mum
5	avec mon frère	with my brother
6	avec ma soeur	with my sister

Connectives

1	donc	therefore
2	ou	or
3	ensuite	then
4	parce que	because
5	comme	as
6	mais	but
7	pourtant	however
8	aussi	also

Frequency

1	tous les jours	every day
2	de temps en temps	now and again
3	une fois par semaine	once a week
4	deux fois par mois	twice a month
5	ne...jamais	never
6	en ce moment	at the moment
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	surtout	especially
8	plutôt	rather

Adjectives

1	nouveau/elle	new
2	chouette	great
3	passionnant	exciting
4	effrayant	scary
5	gratuit	free
6	ennuyeux	boring
7	nul	rubbish
8	cher	expensive

Describe Myself and Others

1	beau/belle	handsome/beautiful
2	moche	ugly
3	vieux/vieille	old
4	heureux/heureuse	happy
5	gourmand/gourmande	greedy
6	mûr/mûre	mature
7	sensible	sensitive
8	casse-pieds	annoying
9	méchant/méchante	nasty/mean/naughty
10	paresseux/paresseuse	lazy
11	rigolo/rigolotte	funny
12	débrouillard/débrouillarde	sad

Subject: Geography	Topic: Environmental issues	Year Group: 8

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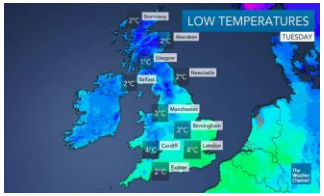
A.. Extreme weather- beast from the east

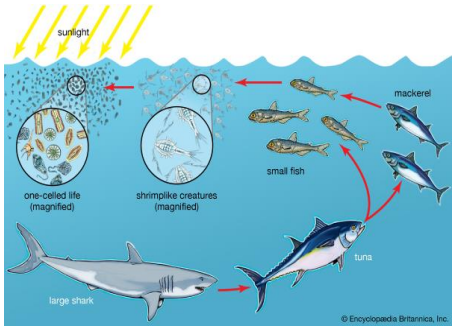
1	**Extreme weather**	Extreme weather includes unexpected, unusual, unpredictable, severe or unseasonal weather.
2	**Beast from the east UK-2018**	10 people died Up to 50cms of snow fell on high ground Rural (countryside) areas experienced temperature lows of up to -12°C schools were forced to close. Rail services were cancelled. and hundreds of flights were cancelled. There was a shortage of food in some supermarkets, Drifting snow led to the isolation of a number of villages



B. Causes of climate change

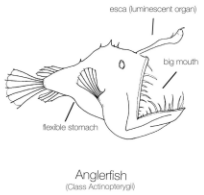
1	**Natural causes**	**Volcanic eruptions**; volcanoes release gases that contribute to the greenhouse effect. **Orbital changes**; the earth moves closer and further away from the sun. **solar flares;** flares from the sun increase temperature to the earth
2	**Human causes**	Deforestation, burning fossil fuels- increases the greenhouse effect.
3	**Consequences of climate change**	Sea level rise, loss of species, melting of ice caps, extreme weather.

C. Ocean ecosystems

1	**ecosystem**	An Ecosystem is a natural system made up of plants, animals and the natural environment in which they live. They rely on interaction between the living (Biotic) and non living (abiotic) environment.
2	**Ocean food chain**	

D. Ocean adaptations

1	**Angler fish**	Some examples of angler fish adaptations would be its colour, its ability to release mate attracting pheromones, and its glowing bulb used for catching food. The deep sea anglerfish has adapted in the way of **skin** colour to protect itself from **predators** as well as to disguise itself while trying to catch prey.



E. Threats to the ocean

1	**Over fishing**	Overfishing is simply a situation where humans catch too much fish from the oceans (and also water bodies) in such massive quantities and fast pace than nature can naturally replenish. In other words, it is when we take out more fish than the fish can naturally replace. This leads to a degradation of our oceans, making it a non-sustainable use of the world's oceans
2	**Oil spills**	Oil spills are extremely damaging to the environment. The shiny substance that forms on the sea when oil is spilled causes many marine animals, like seabirds, sea otters, and killer whales, to get sick and die. Many marine plants are affected, as well
3	**Plastic in the ocean**	Plastic rubbish can be incredibly harmful to fish and other sea life. And, as they take a long time to degrade.

Subject: German | Knowledge Organiser | Year 8

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Present Tense

1	Ich mache	I do/make
2	Ich gehe	I go
3	Ich spiele	I play
4	Ich esse	I eat
5	Ich trinke	I drink
6	Ich sehe	I watch
7	Ich wohne	I live/stay
8	Ich fliege	I fly
9	Ich lese	I read
10	Ich trage	I wear
11	Ich nehme	I take
12	Ich kaufe	I buy

Past Tense

1	Ich bin geflogen	I flew
2	Ich bin gegangen	I went
3	Ich habe gespielt	I played
4	Ich habe gegessen	I ate
5	Ich habe getrunken	I drank
6	Ich habe gesehen	I saw
7	Ich habe gewohnt	I lived/ stayed
8	Ich habe gemacht	I did/ made
9	Ich habe gelesen	I read
10	Ich habe getragen	I wore
11	Ich habe genommen	I took
12	Ich habe gekauft	I bought

Future Tense – I will

3	Ich werde machen	I will do/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 sehen	I will watch
9	Ich werde wohnen	I will live/ stay
10	Ich werde fliegen	I will fly
11	Ich werde lesen	I will read
12	Ich werde tragen	I will wear
13	Ich werde nehmen	I will take
14	Ich werde kaufen	I will buy

Conditional Tense – I would like to…

3	Ich möchte machen	do/make
4	Ich möchte gehen	go
5	Ich möchte spielen	play
6	Ich möchte essen	eat
7	Ich möchte trinken	drink
8	Ich möchte sehen	watch
9	Ich möchte wohnen	live/stay
10	Ich möchte fliegen	fly
11	Ich möchte fahren	travel
12	Ich möchte tragen	wear
13	ich möchte nehmen	take
14	ich möchte kaufen	buy

There is…

1	Es gibt	There is/are
2	Es gab	There was/were
3	Es wird geben	There will be

Imperfect Tense

1	Ich war	I was/I used to be
2	Ich hatte	I had/I used to have
3	Es war	It was

Structures with infinitives

1	Ich mag…gehen/machen	I like going/doing
2	Ich mag…gehen/machen nicht	I don't like going/doing
3	Man muss…gehen/machen	you have to go/do

Subject: German | Knowledge Organiser | Year 8

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Sentence Starters

1	Ich finde	I find
2	Meine Meinung nach	in my opinion
3	Ich würde sagen, dass	I would say that

Signposting Time Frames

1	letztes Jahr	last year
2	letzte Woche	last week
3	gestern	yesterday
4	normalerweise	normally
6	heute	today
7	nächste Woche	next week
8	nächstes Jahr	next year

Who with

1	mit meiner Familie	with my family
2	mit meinen Freunden	with my friends
3	mit meinem Vater	with my dad
4	mit meiner Mutter	with my mum
5	mit meinem Bruder	with my brother
6	mit meiner Schwester	with my sister

Possessives

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

Question Words

1	wer	who
2	was	what
3	wann	when
4	wo	where
5	warum	why
6	wie	how
7	wie viel	how much

Intensifiers

1	also	so
2	zu	too
3	total	totally
4	gar nicht	not at all
5	sehr	very
6	nicht	not
7	nur	only

Connectives

1	und	and	5	denn	because
2	oder	or	6	weil	because
3	mit	with	7	jedoch	however
4	ohne	without	8	auch	also

Frequency

1	immer	always
2	ab und zu	now and then
3	oft	often
4	zuerst	first of all
5	einmal pro Woche	once a week
6	nie	never
7	manchmal	sometimes
8	zweimal pro Jahr	twice a year
9	früher	before

Adjectives

1	groß	big
2	klein	small
3	laut	loud
4	ruhig	quiet
5	lecker	tasty
6	kurz	short
7	lang	long
8	schön	beautiful
9	toll	great
10	das macht Spaß	that's fun
11	klassisch	classic
12	teuer	expensive
13	billig	cheap
14	alt	old
15	schrecklich	terrible
16	spannend	exciting
17	gesund	healthy
18	weit	far/wide
19	sonnig	sunny
20	windig	windy
21	heiß	hot
22	kalt	cold
23	wolkig	cloudy
24	neblig	foggy

Subject: History | Topic: Why did the Slave Trade end? | Year Group: 8

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1. The beginning of the Slave Trade

1	**What was pre-colonial Africa like?**	1. By the 1400s, the continent of Africa was home to hundreds of vibrant, dynamic cultures 2. The cultures were diverse and had a range of languages, religions, arts, technologies, and evolving worldviews. 3. There were networks of trade routes stretching across the whole continent
2	**How did the slave trade begin?**	1. The colonisation of North East Africa had begun as early as the Greek and Roman Era 2. The transatlantic slave trade began during the 15th century when Portugal, and subsequently other European kingdoms, were finally able to expand overseas and reach Africa. 3. The Portuguese first began to kidnap people from the west coast of Africa and to take those they enslaved back to Europe.
3	**Why did the slave trade begin?**	1. Colonisers settling in new countries needed workers to work on their land 2. The Industrial Revolution was starting and this depended on affordable materials being imported 3. The attitude of colonialism was that their way of life was the best so needed to be spread 4. Ideas about racial superiority were used to justify enslaving Africans
4	**What was the Slave Trade Triangle?**	The trade triangle was made up of three voyages: 1. From Britain to West Africa carrying manufactured goods. 2. From West Africa to the West Indies carrying slaves 3. From the West Indies to Britain carrying goods like sugar and cotton The English explorer John Hawkins was the first person thought to benefit from this trade triangle in the 16th Century

2. The Experience of the enslaved

1	**The Middle Passage**	1. The journey from West Africa to America took 8-12 weeks 2. Enslaved people were packed into the ship in very tight quarters and laid down for most of the journey. 3. Captives were chained up for the entire journey, meaning that diseases spread quickly and easily from slave to slave. 4. Many threw themselves overboard in order to avoid their fate as a slave. 5. 25% of enslaved people died on this journey
2	**The Auction**	1. When they arrived in America, enslaved people were auctioned to the highest bidder 2. They were treated like animals, with their bodies being examined to check their fitness for work 3. Enslaved people were branded by the people who bought them
3	**Life for enslaved people**	1. Some enslaved people were given domestic jobs: butlers, cooks and maids 2. Most other enslaved people were made to work on a plantation growing cotton and tobacco 3. They were forced to those who worked 18 hour days and lived in horrible, cramped conditions 4. Enslaved people had no legal protection, therefore marriages and families could be broken up by their enslavers - 32% of marriages were dissolved by enslavers selling slaves. 5. Beatings and maiming were common forms of punishment

Key Word	Definitions
Auction	When goods are sold to the highest price offered
Cat O'nine tails	A whip used to punish enslaved people on the plantations
Enslaved	Someone who is captured and forced to work with no freedoms
Enslaver	Someone who captures or keeps another person enslaved
Middle Passage	The ship's journey from West Africa to the Americas
Plantation	A large farm on which crops such as coffee, sugar and tobacco were grown.
Trade triangle	Three part trading cycle between Africa, Europe and the Americas
Transatlantic slave trade	The enslavement of Africans and transport of these people to the Americas

3. Enslaved rebellion

1	**How did enslaved people resist their enslavers?**	1. They would work more slowly, pretend they didn't understand instructions 2. Some enslaved people would attempt to escape and run away from plantations.
2	**What happened in the Haitian Revolution?**	1. An army of enslaved people led by Toussaint L'Ouverture burned the plantations on the island of Saint Doningue, defeating both militias and French troops. 2. The British attempted to take control over the island, but were also defeated by the freed men
3	**What was the result of the Haitian Revolution?**	1. They founded the first independent country, under black leadership: Haiti 2. There was fear that this rebellion would spread to other islands and plantations.
4	**How typical was the Haitian Revolution?**	1. The Haitian Revolution was unusual compared to other rebellions by enslaved people. 2. There were a number of other enslaved rebellions that ended in defeat and the punishment or execution of the rebels. 3. A more successful type of rebellion was the Underground Railroad, which was a secret network of people that would help runaways escape to the northern states of America, where slavery was banned.

Subject: History | Topic: Why did the Slave Trade end? | Year Group: 8

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4. How and why was the slave trade abolished?

1	How was the slave trade abolished?	1. Britain introduced the Slavery Abolition Act in 1833. 2. This abolished slavery in most British colonies but didn't directly apply to America
2	Political reasons	1. Granville Sharp used the law courts to try and give slaves their freedom. He fought many court cases, e.g. the Zong ship. 2. Slaves in Britain went to court to get their freedom. By the early 1800s most judges set these slaves free.
3	Economic reasons	1. Sugar plantations were closing as cheap sugar could be bought from Brazil and Cuba. 2. It was also argued that people would work harder if they were freed and paid.
4	The influence of the Media	1. Thomas Clarkson published posters, pamphlets and making public speeches. 2. Josiah Wedgewood created pottery supporting abolition 3. Hannah More wrote poems and books about the horrors of the slave trade
5	Key Individuals	1. William Wilberforce campaigned against the slave trade in front of Parliament 2. Olaudah Equiano became involved in the London abolition movement and published his influential autobiography

5. How was slavery abolished in America?

1	How was slavery abolished in America?	1. The USA abolished slavery on the 31st January 1865. 2. It was known as the 13th Amendment and it declared that all people in the United States were free.
2	Religious reasons	1. Many Christian groups, such as the Quakers and Evangelicals, thought that slavery was a sin
2	Economic reasons	1. Northern factory owners desperately needed workers. 2. They believed that if freed, the enslaved people in the south would leave and provide the workers they needed.
3	The impact of the American Civil War	1. Northern and Southern states began fighting because of disagreement over slavery, economic differences and sate control. 2. Abraham Lincoln promised to free all enslaved people if the North won 3. This caused enslaved people in the south to flee and fight for the North
4	The Reconstruction Era	1. After the Civil War, the Reconstruction Era started 2. Congress created the Freedmen's Bureau to help freed men transition from slavery. 3. The Civil Rights Act of 1866 allows African Americans to own property and to be treated equally in court. 4. During the Reconstruction Era, 6 black men were elected to congress
5	Continued racism	1. Many people still disagreed with the ending of slavery 2. In 1866 the Ku Klux Klan was founded. It was a racist organisation that intimidated Black Americans 3. In 1892, the Supreme Court ruled that it was legal to segregate black and white people

Key Word	Definitions
Abolition	To formally put an end to something
Abolitionist	People who worked to stop slavery and the slave trade
Bill	A law passed by Parliament
Evangelical	A form of Christianity popular in America
Jim Crow Laws	A set of unofficial rules that put limits on the lives of Black Americans in the southern states of America
Parliament	The organisation that runs Britain, made up of elected MPs
Quaker	A form of Christianity popular in America
Segregation	Keeping black and white people separate

6. What is the lasting impact of slavery?

1	Africa	1. It has been estimated that over 12 million people were taken from Africa 2. The people taken were between 18 and 40, which stopped societies being able to sustain and support themselves 3. During the slave trade, the demand for slaves increased conflict between different African kingdoms 4. These conflicts continued well after the slave trade ended 5. West African societies were drained of resources
2	Race relations around the world	1. Racial tensions continue globally today. 2. In America, Black Americans experienced prejudice and inequality, resulting in the 1950s-60s Civil Rights Movement 3. According to a 2017 study, Black men are 26% more likely than white men to be imprisoned in Britain 4. The poverty rate for Black Americans was double that of than White Americans in 2018 5. From 2013 the Black Lives Matter Movement has protested against the use of violence by the police

Subject: Maths	Term: Half Term 4 – January	Year Group: 8

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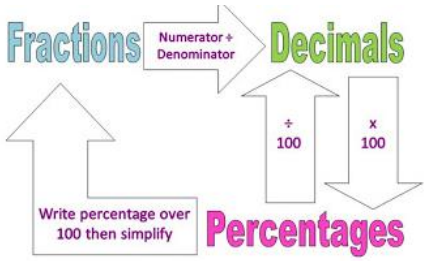
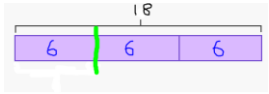
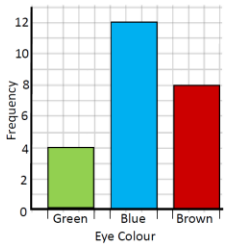
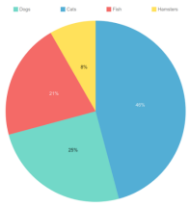
Number – Fractions

1	FDP	

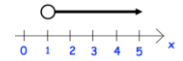
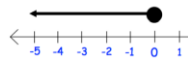
Ratio, Proportion and Rates of Change – Ratio

1	Simplifying	To simplify, you need to divide each part of the ratio by the same factor. Example: 15 : 50 *becomes* 3 : 10 because you can divide both parts by 5.
2	Sharing	Using bar models to share a quantity in a given ratio. Example: *Share £18 in the ratio* **1:2**. **1 + 2** = **3** parts total.  £18 shared between **3** boxes: 18 ÷ 3 = £6 Shared in the ratio **1:2** gives the answer of £6 : £12.

Statistics – Data Representation

1	**Tally Chart** • Information you are collecting listed. • Column for tallies. • Column for frequency.	
2	**Bar Chart** • Frequency on y-axis. • Information you are collecting on the x-axis. • Bars same width. • Equal gaps between bars. • Title explaining what the chart shows.	Eye colours in a Year 8 Class 
3	**Pie Chart** • Divided into sectors which shows the relative size of the data. • Needs a key or labels to clearly show what each sector represents. • Sectors calculated using parts of 360°.	

Algebra – Inequalities

1	Greater than (>) Less than (<)	Greater than or equal to (≥) Less than or equal to (≤)
2	Representing inequalities on a number line	x > 1  x ≤ 0 

Number – Percentages

1	Percentage Change	$\frac{Changed\ by}{Original\ amount}\ x\ 100$ $\frac{Change}{Original} \times 100$

Key Vocabulary

	Convert	To change a value or expression from one form to another.
1	Simplify	To make as simple as possible.
3	Frequency	How often something happens.
4	Simultaneous Equations	Two or more equations with shared variables.
5	Recurring decimal	A decimal number that has digits that repeat forever.

Music	Topic: Music for Film	Year Group: 8 – Half term 4

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1. Key film terms terms		
1	**Silent films**	The original films that had no sound due to technical limitations. Music was provided my musicians in the theatre.
2	**Projector**	Projectors were used to display the original films in the cinema, however they were so noisy that music had to be provided to cover the noise.
3	**Genres**	Different styles of films e.g. Horror, adventure, Romance and comedy.
4	**Underscore**	Music in the background of the clip.
5	**Leitmotif**	A tune that is associated with a character or theme.
6	Diegetic Music	Music in a film that is heard by the characters – e.g. Radio
7	Non-diegetic music	Music in a film not heard by the characters, used to create the required mood e.g. suspense.

2. Film composition terms		
1	**Primary chords**	The three most important chords that a key is constructed with. They are build from the 1st, 4th and 5th note of the scale. In C major, this would be C, F and G.
2	**C major chord**	A happy sounding chord using the notes C, E and G
3	**F major chord**	A happy sounding chord using the notes F, A and C
4	**G major chord**	A happy sounding chord using the notes G, B and D.
5	**Scales**	A group of notes that create certain moods when combined together. We use them to create our melody.
6	**D minor chord**	A sad sounding chord using the notes D, F and A.
7	**Bb major chord**	A happy sounding chord using the notes Bb, D and F.
8	**G minor chord**	A sad sounding chord using the notes G, Bb and D.

3.Key Vocab - Musical elements		
1	**Melody**	The main tune, played on instruments or sung.
2	**Chords**	Two or more notes played at once.
3	**Bass line**	The lowest part in music, provides the harmonic structure of the music.
4	**Motif**	A repeated musical pattern used in Rock, Pop and Jazz.
5	**Chord sequence**	A pattern of chords used in music.
6	**Syncopation**	A rhythmic feature where the music falls off the beat.
7	**Dynamics**	The volume of the music
8	**Texture**	How the instruments are combined, for example monophonic, homophonic, melody and accompaniment.
9	**Instrumentation/Timbre**	The instruments used to create the music, and how they are played.
10	**Tempo**	The speed of the music.
11	**Major Key**	A group of notes that generally sound happy when used together.
12	**Minor key**	A group of notes that generally sound sad when used together.

Important film music composers include: John Williams, Howard Shore, Danny Elfman, Hans Zimmer and Rachel Portman

Subject: RE	Topic: Science religion	Year Group: Year 8

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Knowledge Group 1		
1	**What does truth mean?**	Something proven to be right
2	**What is scientific truth?**	Truth based on scientific evidence
3	**What is historic truth?**	Truth discovered through history
4	**What is religious truth?**	Truth through religion, scripture or revelation
5	**What is an objective truth ?**	Evidence based on fact
6	**What is a subjective truth?**	Evidence based on opinion

Knowledge Group 2		
1	**What happened in the Big Bang?**	Particles collide and exploded, as it cooled the world was created
2	**What does creationism mean?**	God created the world and everyone on it
3	**Where in the Bible is the creation story?**	Genesis in the Old Testament
4	**Give one similarity between creationism and the Big bang**	They believe there was nothing before the world was created
5	**Give one difference between creationism and the Big bang**	Science thinks it happened by chance, religion thinks it happened by God

Knowledge Group 3		
1	**What is the theory of evolution?**	Idea humans evolved from apes
2	**Who created the theory of evolution?**	Charles Darwin
3	**Give one reason evolution goes against religion?**	It suggest humans evolved into what they are, as opposed to been created human
4	**What is natural selection?**	The survival of the fittest
5	**According to the Bible, what were humans made in?**	Humans are made in the image of God
6	**Give one piece of evidence that supports evolution**	Fossils and remains of human skulls that have evolved

Knowledge Group 4		
1	What is the design argument?	Idea the world had a designer; the designer was God; God exists
2	Who created the watch maker design argument?	William Paley
3	What is chance?	Something that just happens, no purpose or intention
4	Who is the designer in the watch argument?	God
5	Give one reason against the design argument proving existence	There are too many issues with the world to have been designed perfectly
6	Give one reason for the design argument proving existence	Only an omnipotent being could have designed the world, the world wouldn't function by chance

Key Vocabulary	
Evidence	Facts that can indicate whether or not something is true
Truth	Something that is proven to be right
Objective truth	Evidence is based on facts
Subjective truth	Evidence is based on opinion
Big bang Theory	The idea the world began within a Big Bang and a crash of particles
Creationism	The idea God created the world in 7days
Theory of evolution	Theory humans evolved from apes
Natural selection	The idea of the survival of the fittest
The design argument	Theory that suggests the world needs a designer; that designer is God
Chance	Something just happens without being planned
Cosmological revolution	When people began to look to science for the answers over religion

- ❑Around 56% of scientists also believe in God and Most scientists believe science does not conflict with Religion
- ❑Most scientists believe what science and religion prove is independent of each other. Science answer how and religion why.
- ❑You are statistically more likely to be religious if you are a scientist as Scientists generally believe religion enhances science
- ❑They believe the evolution debate is not yet the full story so doesn't contradict religion fully yet.

Subject: Science	Topic: B6 - Photosynthesis	KS3

Knowledge: Photosynthesis

Photosynthesis is a process plants use to produce their own food.

Chloroplasts are the sub-cellular structures in plants that carry out photosynthesis.

They contain a pigment called Chlorophyll, which absorbs sunlight

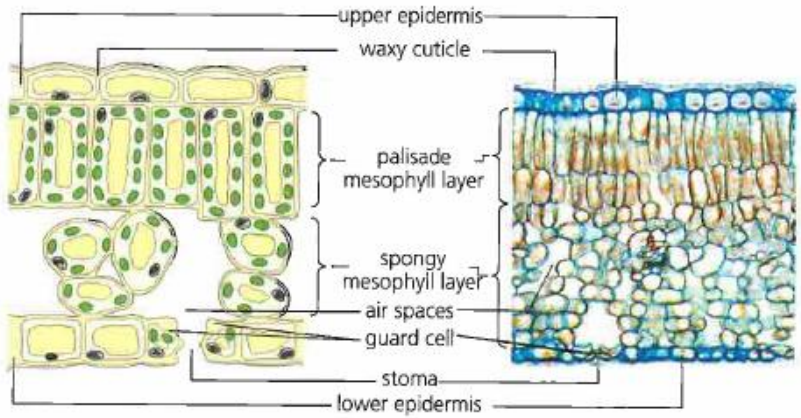
Knowledge : reactants and products

1	Carbon dioxide + water are the reactants used in photosynthesis. Water gets into the plant through the roots. Carbon dioxide gets into the plant through the leaves.
2	Oxygen + Glucose are the products of photosynthesis. Oxygen leaves the plant through the leaves or is used by other plant cells for respiration.
3	Glucose has different uses in the plant. E.g., Respiration, making cell walls and converting to starch for storage.

Knowledge: Word equation for photosynthesis

Carbon dioxide + water → oxygen + glucose

Knowledge: Internal Structure of a leaf



Key Vocabulary - Respiration

1	**Iodine**	**A substance used to test for the presence of starch.**
2	**Stomata**	**Small gaps on the bottom of leaves**
3	**Guard cells**	**Curved cells found on the bottom of leaves**
4	**Waxy cuticle**	**A thin layer on the top surface of the leaf**
5	**Palisade mesophyll**	**Leaf cells that contain lots of chloroplasts**

Question & Answer

1	**Why do leave have large surface areas?**	To absorb more sunlight
2	**Why are leaves thin?**	To give a short diffusion pathway
3	**What is the function of the stomata?**	To allow oxygen to leave and carbon dioxide to enter the leaf
4	**What is the function of guard cells?**	To open and close the stomata
5	**Why are there air spaces in leaves?**	To allow gases to diffuse in and out of the leaf

Subject: Science	Topic: B7 - **Respiration**	KS3

Knowledge: Respiration

Respiration is chemical reaction in cells, that breaks down glucose to provide energy.

Cells respire so they have energy to function.

Knowledge : Respiration

1	**Aerobic respiration**: • Glucose is broken down with oxygen • Happens in the mitochondria • Produces carbon dioxide and water
2	**Anaerobic respiration:** • Glucose is broken down without oxygen • Lactic acid is produced in animals • Happens in the cytoplasm
3	**Fermentation:** • A type of anaerobic respiration • Happens in yeast and plants • Carbon dioxide and ethanol (a type of alcohol) are produced

Additional info:

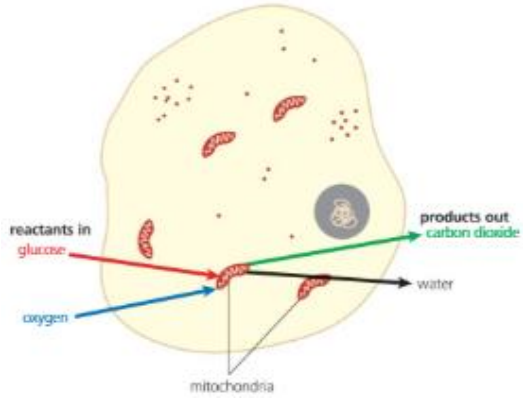
Aerobic respiration - releases more energy than anaerobic

Lactic acid – causes muscle cramps and fatigue

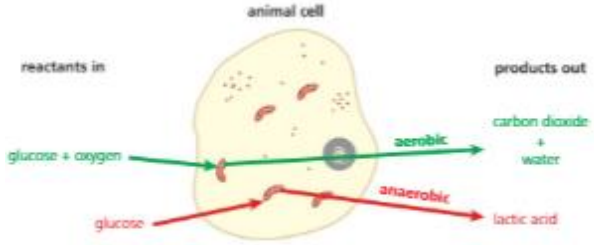
Fermentation – is used in the production of bread and alcoholic drinks

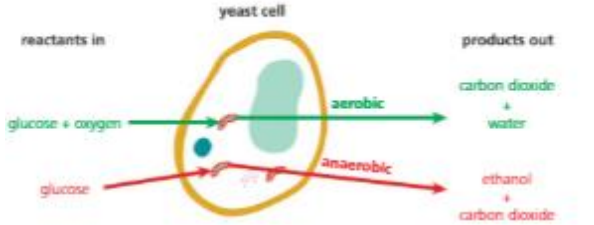
Knowledge: respiration in cells

Aerobic respiration



Anaerobic respiration:





Key Vocabulary - Respiration

1	Respiration	The breakdown of glucose to transfer energy
2	Aerobic	Breaking down glucose with oxygen
3	Anaerobic	Breaking down glucose without oxygen
4	Fermentation	In plants/yeast cells, anaerobic respiration makes different products. This is called fermentation.

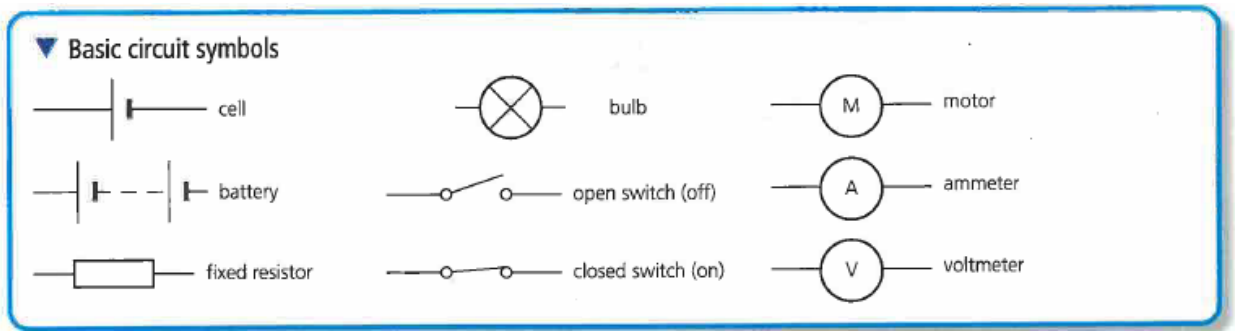
Knowledge: key word equations

1	Aerobic respiration: glucose + oxygen → carbon dioxide + water
2	Anaerobic respiration: glucose → lactic acid
3	Fermentation (anaerobic in plants/yeast): glucose → ethanol + carbon dioxide

Subject: Science (Physics)	Topic: P7 Electricity	KS3

Key Vocabulary

1	**Electrons**	Charges that are free to move in a metal
2	**Coulombs (C)**	The unit of Charge
3	**Current**	The flow of charge
4	**Amps (A)**	The unit of Current
5	**Ammeter**	Used to measure current
6	**Potential difference (p.d.)**	Term used to describe the amount of energy transferred between two points in a circuit
7	**Volts (V)**	The unit of Potential difference
8	**Voltmeter**	Used to measure Potential difference in a circuit
9	**Resistance**	How electrons can be slowed down by the circuit
10	**Ohms (Ω)**	The unit of resistance
11	**Battery**	Two or more cells joined together
12	**I = V ÷ R**	Current = potential difference ÷ resistance

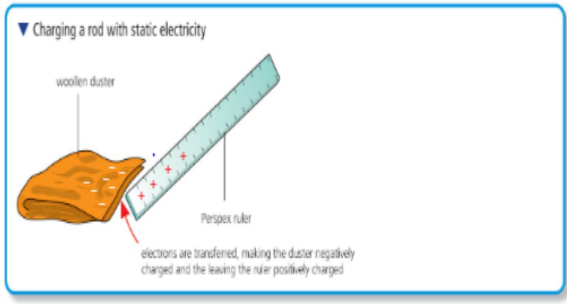


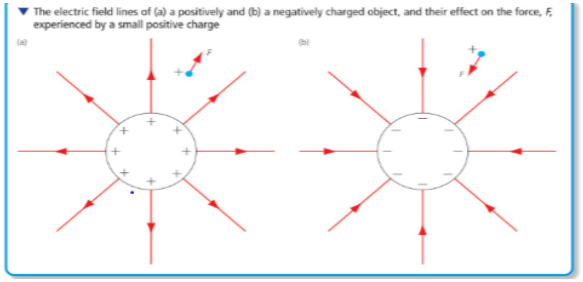
Question & Answer

1	**What is an electrical insulator?**	A material with no charges that are free to move e.g. wood, plastic & air
2	**What is an electrical conductor?**	A material that has charges that are free to move e.g. Metals
3	**How many loops are in a series circuit?**	one
4	**How many loops are in a parallel circuit?**	Two or more
5	**What does 1 A represent?**	One coulomb of charge passing a point per second
6	**How are voltmeters connected to a circuit?**	In parallel with the component being measured
7	**What is the relationship between potential difference and current?**	As potential difference increases, current increases
8	**What is the relationship between resistance and current?**	As resistance increases, current decreases

Subject: Science (Physics)	Topic: P8 Static Electricity	KS3

Static Charges	
The two types of charges a material can have.	Positive and Negative
When a material has no charge.	Neutral
When identical charges are close together.	Repel
When opposite charges are close together.	Attract
This subatomic particle moves between materials to create static electricity	Electrons
The charge on electrons	-1
This force moves electrons between two materials	Friction
When substances have become positively charged, they has ……. electrons	Lost electrons
When substance have become negatively charged , they have ……..electrons	Gained electrons





Electric Fields	
Which objects will have an electric field	Objects with charge
The name of the force between charged objects	Electrostatic charge
Electrostatic force is a n….. c…….	Non-contact force
The relationship between the strength of an electrostatic force and the distance from the charged object	As the distance increases, the electrostatic force decreases.
We use these to show the direction of an electric field in a diagram	Field lines
The electric field lines point in this direction	Positive to negative
The distance between the electric field lines and the strength of the electric field are linked ……	The closer the lines the stronger the electric field.
The force felt by a charged object related to the strength of the electric field	The stronger the electric field the greater the force felt.

PSHCE | Physical Health: Year 8 | Half term 2

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Personal Safety: Road

1	**How can we stay safe?**	Belt up before the car sets off – tell the driver to hold on Belt up for every journey – short and long Check everyone else belts up too – front and back, kids and adults! Never undo your seat belt on the journey The law says you have to use a booster seat if you're under 135cm tall – otherwise your seat belt can't do it's job
2	**Cycling safety**	Wear a helmet whenever you cycle If you have a bike, keep it in good shape Be bright, be seen – wear high-vis gear morning and night!
3	**How to cross smart**	Choose safe routes Use crossings if you can If there's no crossing, find somewhere safe – away from parked cars and bends in the road Stay focussed – never cross while using a mobile or stereo Don't trust traffic Use the Green Cross Code

Substance misuse: Vaping

1	**Environmental impacts of vaping**	In the UK, vapes require specialist recycling. If they aren't recycled, the lithium-ion batteries can start fires when crushed in a waste truck or at a waste-processing plant.
2	**Health impact**	Vaping can be addictive, mostly due to the presence of nicotine.
3	**Legal impact**	It is not illegal to smoke or vape underage, but anyone who sells cigarettes or vapes to under-18s, or buys them on behalf of anyone under 18, is breaking the law.
4	**How to say no**	Have a way out, be confident, find your tribe, stand up to others and get help/advice

The science behind: Vaccines

1	**What is a vaccine?**	A dead, weakened or part of a pathogen (virus or bacteria) given to a person. The body's immune system produces 'antibodies' which destroy the pathogen. The body's immune system 'remembers' which antibodies it needed to destroy the specific virus or bacteria The body can produce the antibodies much quicker if they encounter the pathogen again
2	**Why are vaccines important?**	Vaccines don't just protect one person. They help to stop diseases spreading to other people.

Health prevention: Knife crime

1	**How many young people do not carry a knife?**	99% of 10-29 year olds do not carry a knife
2	**Legal impact**	A person can get up to 4 years in prison for carrying a knife, even if it is never used
3	**Health impact**	People who carry a weapon are more likely to be hospitalised with a violence-related injury, and in many cases their own weapon has been used against them

Healthy vs Inactive lifestyles: Weight

1	**What is a calorie?**	A 'calorie' is a unit of energy i.e. a way of measuring how much energy there is.
2	**What can influence your weight?**	Food, genetics, illness, drink, medicine, exercise and hormones
3	**Physical activity and weight**	When you're exercising, even though you're using energy (calories) you're not always burning fat or losing weight. To burn fat, you're body needs to exercising at an intensity unique to each person.

Healthy eating: Health conditions

1	**Obesity**	If we consume more calories than we need, our weight increases and so does our risk of obesity. Obesity increases the fat stores within our body, which in turn may increase our blood pressure and cholesterol, therefore increasing the risk of heart disease in the future. Our blood sugar levels may also rise, which can increase the risk of type two diabetes.
2	**How to improve your diet to protect your health**	Eat 5 fruits and vegetables a day Include one portion of starchy carbohydrates per meal (preferably wholegrain) Include one portion of protein per meal, aim to include more plant-based proteins. Consume 2-3 portions of dairy per day, preferably low fat. Keep well hydrated, preferably with water. Consume foods that are high in fat, salt and sugar less often and in small amounts.
3	**Other factors that can influence our health**	Exercise, sleep and mental wellbeing.

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