Year 8 Knowledge Organiser

Summer Term 2021/22

Name: **Form:**

West Norfolk
Academies Trust

Core British Values

Liberty

- I can influence the way the school runs through the school council and by talking to staff.
- I can influence my lessons through putting my hand up and responding.
- I am free to think as I see fit.
- I have the freedom to make choices that affect me but I recognise that I am accountable for all my actions.

Respect

- I recognise that everyone is entitled to their opinion as long as it does not promote extremism.
- I understand that everyone is entitled to a voice within the classroom.
- I will listen to others as I would like to be listened to.

Democracy

Law

Tolerance

- I recognise that it is unacceptable to dismiss the beliefs and opinions of anyone.
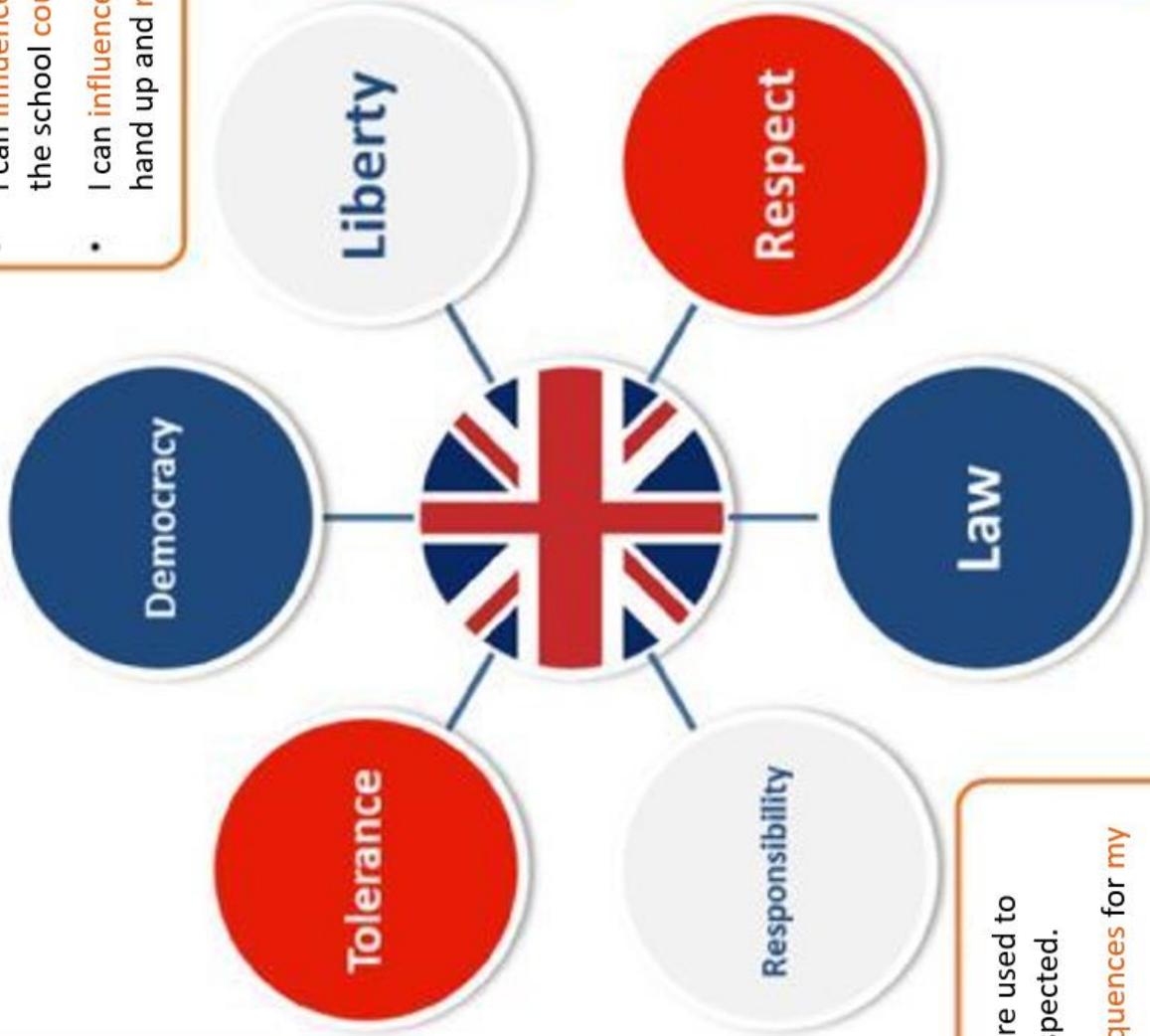- I understand that discussions about sensitive issues will be controlled and structured.

Responsibility

- I recognise that I am as responsible for my learning as my teacher.
- I take responsibility for all of my actions – good or bad.
- We all have a responsibility to promote and protect the wellbeing of others.
- I understand that the school rules are used to mirror society laws and must be respected.
- I recognise that there will be consequences for my actions.

Social - Moral - Spiritual - Cultural

Contents Page

Instructions for using your Knowledge Organiser

Every school day, you should study 1 to 2 subjects from your knowledge organiser for homework lasting at least 1 hour in total.

On pages 6 and 7 there is space for you to record the subjects you have studied to make sure you are giving equal time to all of them. Your parent should sign off your homework each evening on these pages.

Your parent should also sign your reading log on pages 8 and 9.

You can use the note pages in this booklet to help with your studies.

You need to bring your Knowledge Organiser to school every day. It will be checked regularly during form time.

You will be regularly tested on knowledge contained in this booklet in your lessons and through quizzes on Show My Homework.

Self- testing

You can use your Knowledge Organiser in a number of different ways but you should not just copy from the organiser. Use the following tips and guidance to help you get the most out of learning and revising your subject knowledge.

These are some possible tasks you could try:

- Ask someone to write questions for you
- Write your own challenging questions, leave them overnight and try answering them the next day
- Create mind maps
- Create flash cards
- Put the key words into new sentences
- Look, write, cover and check
- Write a mnemonic

- Use the 'clock' template to divide the information into smaller sections
- Give yourself a spelling test
- Give yourself a definition test
- Draw images and annotate/label them with extra information
- Do further research on the topic
- Create fact files
- Create flowcharts
- Draw diagrams

How to make the most of your knowledge organiser

Questions/Answers, Answers/Questions

Ask a parent, carer, study partner to write you questions (or answers) and then you write the answer (or possible question that would respond to that answer).
You can also write your own questions but if you do this leave it until the next day before you answer them to see what you can remember after a break.

Always remember to check and correct

Flashcards

These are a very good and simple self-testing tool.
To make your own, take some card and cut into rectangles roughly 10cm x 6cm.
Write the key word on one side and the definition on the other.
Then go through your cards looking at one side and seeing if you can remember the keyword/definition on the other side.

The Learning Scientists

As a trust, we have always been keen to find out more about how we learn and how we can support our students in their learning.

The Learning Scientists are a group of cognitive psychological scientists interested in research on education. Their main research focus is on the science of learning. (Hence, "The Learning Scientists"!)

Through decades of research, they have identified and developed six key learning strategies, which are explained over the next few pages. These are the main strategies we encourage our students to apply to their studies.

Please visit the Learning Scientists' website for more useful information, including blogs for parents to help support their children with their learning.

https://www.learningscientists.org/

Six Strategies for Effective Learning

All of these strategies have supporting evidence from cognitive psychology. For each strategy, we explain how to do it, some points to consider, and where to find more information.

ELABORATION
Explain and describe ideas with many details

RETRIEVAL PRACTICE
Practice bringing information to mind
WRITE OR SKETCH

CONCRETE EXAMPLES
Use specific examples to understand abstract ideas
eg
MY FOLDER

SPACED PRACTICE
Space out your studying over time
SPACING
TESTING 1 2 3 SKETCHING

INTERLEAVING
Switch between ideas while you study
ACB CBA BCA TOPICS

DUAL CODING
Combine words and visuals

LEARN TO STUDY USING...

Spaced Practice

SPACE OUT YOUR STUDYING OVER TIME

1 TESTING

2 SPACING

3 SKETCHING

HOW TO DO IT

Start planning early for exams, and set aside a little bit of time every day. Five hours spread out over two weeks is better than the same five hours all at once.

Review information from each class, but not immediately after class.

After you review information from the most recent class, make sure to go back and study important older information to keep it fresh.

LEARN TO STUDY USING...

Spaced Practice

SPACE OUT YOUR STUDYING OVER TIME

1 TESTING

2 SPACING

3 SKETCHING

TRY IT NOW

Think of a topic you read about a few chapters back. What were the main ideas?

LEARN TO STUDY USING...

Retrieval Practice

PRACTICE BRINGING INFORMATION TO MIND

HOW TO DO IT

Put away your class materials, and write or sketch everything you know. Be as thorough as possible. Then, check your class materials for accuracy and important points you missed.

Take as many practice tests as you can get your hands on. If you don't have ready-made tests, try making your own and trading with a friend who has done the same.

You can also make flashcards. Just make sure you practice recalling the information on them, and go beyond definitions by thinking of links between ideas.

LEARN TO STUDY USING...

Retrieval Practice

PRACTICE BRINGING INFORMATION TO MIND

TRY IT NOW

Close your book, and write down as much as you can from memory.

Bookmark 1: Elaboration

LEARN TO STUDY USING...

Elaboration

EXPLAIN AND DESCRIBE IDEAS WITH DETAILS

HOW TO DO IT

Ask yourself questions while you are studying about how things work and why, and then find the answers in your class materials and discuss them with your classmates.

As you elaborate, make connections between different ideas to explain how they work together. Take two ideas and think of ways they are similar and different.

Describe how the ideas you are studying apply to your own experiences or memories. As you go through your day, make connections to the ideas you are learning in class.

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Bookmark 2: Elaboration

LEARN TO STUDY USING...

Elaboration

EXPLAIN AND DESCRIBE IDEAS WITH DETAILS

TRY IT NOW

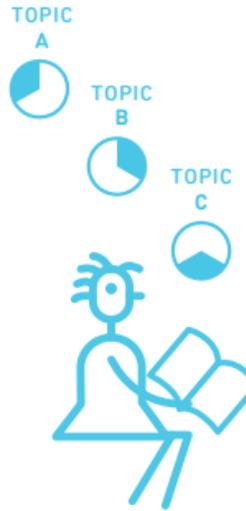Close the book and think about how what you just read connects to something you already know.

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Bookmark 3: Interleaving

LEARN TO STUDY USING...

Interleaving

SWITCH BETWEEN IDEAS WHILE YOU STUDY

TOPIC A
TOPIC B
TOPIC C

HOW TO DO IT

Switch between ideas during a study session. Don't study one idea for too long.

Go back over the ideas again in different orders to strengthen your understanding.

Make links between different ideas as you switch between them.

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Bookmark 4: Interleaving

LEARN TO STUDY USING...

Interleaving

SWITCH BETWEEN IDEAS WHILE YOU STUDY

TOPIC A
TOPIC B
TOPIC C

TRY IT NOW

OK, you've read enough about this topic. Why don't you try to answer some questions about a different topic for a bit?

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LEARN TO STUDY USING...

Concrete Examples

USE SPECIFIC EXAMPLES TO
UNDERSTAND ABSTRACT IDEAS

HOW TO DO IT

Collect examples your teacher has used, and look in your class materials for as many examples as you can find.

Make the link between the idea you are studying and each example, so that you understand how the example applies to the idea.

Share examples with friends, and explain them to each other for added benefits.

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LEARN TO STUDY USING...

Concrete Examples

USE SPECIFIC EXAMPLES TO
UNDERSTAND ABSTRACT IDEAS

TRY IT NOW

Look around you: Can you find an example related to the idea you were just reading about?

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LEARN TO STUDY USING...

Dual Coding

COMBINE WORDS
AND VISUALS

HOW TO DO IT

Look at your class materials and find visuals. Look over the visuals and compare to the words.

Look at visuals, and explain in your own words what they mean.

Take information that you are trying to learn, and draw visuals to go along with it.

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LEARN TO STUDY USING...

Dual Coding

COMBINE WORDS
AND VISUALS

TRY IT NOW

Now that you have read a bit, close the book and draw a visual that incorporates the main ideas.

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Homework log and parental check

Week 1	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 2	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 3	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 4	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 5	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 6	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 7	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

Homework log and parental check

Week 8	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 9	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 10	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 11	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 12	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 13	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Week 14	Subject 1	Subject 2	Signed
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			

Reading log

Use this reading log to record the books you read along with how long you have spent reading and the Accelerated Reader quizzes you have completed.

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Book(s) read (title and author)	Total time spent reading	Parent/Guardian /Staff signature
1										
2										
3										
4										
5										
6										
7										

Reading log

Use this reading log to record the books you read along with how long you have spent reading and the Accelerated Reader quizzes you have completed.

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Book(s) read (title and author)	Total time spent reading	Parent/Guardian /Staff signature
8										
9										
10										
11										
12										
13										
14										

Art – Typography– Painting:

In art, the term **painting** describes both the act of painting, (using either a brush or other implement, such as palette knife, sponge, or airbrush to apply the paint); and the result of the action – the painting as an object.

Art Specific Language and Terms

Term	Definition	Term	Definition
Scaling Up	A technique to help enlarge an image accurately. A grid is drawn over the image to be copied and also onto the paper (both to scale). The image is then copied in sections.	**Colour Blending**	The change from one colour to another gradually. The colour change should appear smooth and is achieved when the two colours are mixed and layered smoothly without an obvious step or line.
Observation	Looking closely at the original image/source so that all the detail and colour changes are seen and replicated.	**Layering**	Applying paint in stages, starting with lighter base colours and adding darker tones later over the top. Often there can be multiple layers to a painting.
Acrylic Paint	Acrylic paint is a fast-drying paint made of pigment suspended in acrylic polymer emulsion.	**Poster Paint**	Poster paint is a distemper paint that usually uses a type of gum-water or glue size as its binder.
Gouache Paint	Gouache is a type of water-soluble paint that, unlike watercolour, is opaque so the white of the paper surface does not show through.	**Oil Paint**	Oil paint is a slow-drying paint that consists of particles of pigment suspended in a drying oil that forms a tough, coloured film on exposure to air.

The 4 most versatile brushes:

Filbert

Bright

Round

Flat

Paintbrush choice:

Flat brushes are versatile. Their long bristles can lay smooth patches of color, make long, bold strokes or when using their edges, execute fine crisp lines. Marks made with a flat brush have a distinctive square edge.

Round brushes come in pointed and blunt tips. Both can be used to create a linear mark by applying more or less pressure during the stroke; the pointed round brush is ideal for fine detail.

Art – Colour and Culture:

Colours carry deep meanings with them in every **Culture**. Western, Far Eastern, Middle Eastern, Indian, and African **cultures** have stark differences in the symbolism of **colours** within their **cultures**. For example, in some **cultures**, white represents innocence, but in others, it can represent death.

Art Specific Language and Terms

Culture	Mix Media	Texture
Culture is a pattern of behavior shared by a society, or group of people. Many different things make up a society's **culture**. These things include food, language, clothing, tools, music, arts, customs, beliefs, and religion.	**Mixed media** is a term used to describe artworks made from a combination of different media or materials.	
Tribal art		**Texture** is the way something feels to the touch, or looks to the eye.
Tribal art is the visual arts and material culture of indigenous peoples.		

Examples of Art, Artists and Culture influencing each other:

Nils-Udo, Nest.
Influenced by the natural world around us all.

Frida Kahlo, was deeply influenced by indigenous Mexican culture.

Japanese art influenced the impressionists.

Jacky Tsai, Reincarnation. Influenced by multiple cultures and popular culture references.

How does Art influence Culture?

Art influences society by changing opinions, instilling values and translating experiences across space and time. Research has shown **art** affects the fundamental sense of self. Painting, sculpture, music, literature and the other arts are often considered to be the archive of a society's collective memory. Art helps preserve what fact-based historical records cannot: how it felt to exist in a particular place at a particular time.

Y8 CITIZENSHIP KNOWLEDGE ORGANISER

Debating Important Issues
Human Rights

Human rights	The basic rights and freedoms that belong to every person in the world, from birth until death.
Civil Liberties	These are like human rights but provide additional protection from the government. For example Freedom of Speech.
Freedom of Press	Newspapers can print what they like without government interference or censorship.
Censorship	Banning or changing materials (newspaper, articles, books etc.) to prevent it being seen by the public.
Freedom	The right to act, think or speak as you want, without interference from the government.
Government	The winning party in a general election: in the UK this is the party with the most seats. They can form a government and run the country.
Discrimination	Treating somebody unfairly or differently because they are different in some way.

Conflicting Rights
Sometimes human rights can clash, can you make the connection between these rights and how they may conflict with one another?

Freedom of Assembly
People are allowed to get together to discuss their views or hold meetings.

Freedom of Press
Newspapers and magazines can print any stories they like.

Freedom to Protest
Gather and protest against any issues.
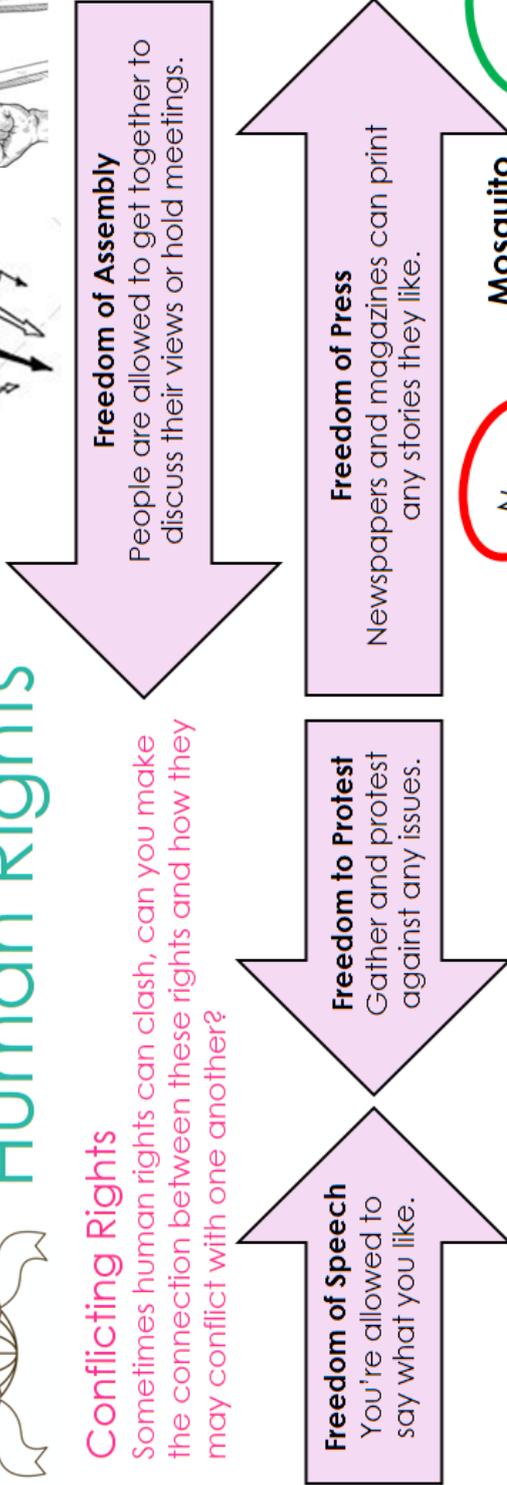
Freedom of Speech
You're allowed to say what you like.

Mosquito devices & Human Rights

Nay!

Yay!

Waste of money – CCTV would be more efficient and less harmful.

Discriminates all young people not just those causing trouble in the community.

Doesn't solve the issue, just moves crime along to a different location.

Stops anti-social behaviour.

Stops intimidation of others in the community.

Helps to keep the community safe for all.

CASE STUDY
Discrimination against young people
Mosquito Devices

WHAT? A Mosquito device emits an ultrasonic noise generally only audible to people under the age of 25. These are used to deter young people from gathering.

WHO? It has been used by local authorities, schools, companies and private households.

WHY? To repel children by making it too uncomfortable for them to be within earshot of the device.

Making connections
How can you link different topics together?

Human Rights + equality + democracy
Human rights + children + education
Discrimination + prejudice + legislation
Diversity + equality + British values + freedoms

Y8 CITIZENSHIP KNOWLEDGE ORGANISER

How can we connect Human Rights and British Values?

Are there any similarities?

What are they?

Acronyms to remember!

UNCRC
United Nations Convention on the Rights of the Child

UN
United Nations

HRA
Human Rights Act

Rights vs Responsibilities

All people have rights, which enable them access to certain freedoms but as citizens we also have responsibilities too.

RESPONSIBILITY
Recognising that you are accountable for your actions; things you are supposed to do.

Obey the law

Right to life

To vote

Freedom of expression

Pay taxes

Freedom of movement

Right to an education

Not to take or infringe on the rights of others

REMEMBER... British Values

Democracy
Everyone being treated fairly and equally, with an equal chance to speak freely

Rule of law
Everyone is equal in the eyes of the law, and should be treated fairly no matter who they are

Freedom
We are free to act and do as we please, as long as we don't break the law or hurt others

Tolerance
People show understanding of others with differing views and opinions, and learn to accept and live together peacefully.

Rights and Responsibilities in school

Student • Governor
Parent • Teacher

Attend school regularly and arrive on time	Review the policies of the school	
Choose the school they want their children to attend	Ensure that children attend school	
Making decision about how the school funding is used	Keep up to date with subject knowledge	
Teach to an excellent standard	Follow school rules	

RIGHT
How a person expects or wants to be treated; things you are entitled to.

United Nations Convention on the Rights of the Child

There are 45 articles which outline specific human rights that children are entitles to, some of them include...

12 Children have the right to give their opinions freely on issues that affect them. Adults should listen and take children seriously.

13 Children have the right to share freely with others what they learn, think and feel, by talking, drawing, writing or in any other way unless it harms other people.

19 Governments must protect children from violence, abuse and being neglected by anyone who looks after them.

31 Every child has the right to rest, relax, play and to take part in cultural and creative activities.

8.5 Spreadsheet Knowledge Organiser
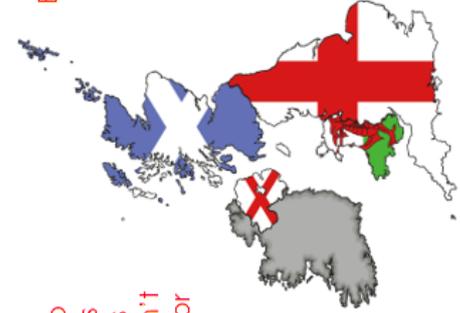
Term	Definition
Row	A range of cells that go across (horizontal) the spreadsheet, given a number.
Column	A vertical range of cells. Columns have a letter.
Cell	A rectangular box that can contain any value
Sheet	A single page in a spreadsheet document
Workbook	A collection of sheets
Formula	A mathematical operation performed on values in the spreadsheet
Cell Replication	Copying of data in a cell to another cell
Conditional Formatting	This changes the format of a cell based on what condition you enter.
If Statement	A function that sees if a condition is met. If it is met a true value is returned if not a false.
Vlookup	Look up a value and retrieve data from a specific column in table
Nested table	Creating a table within a table that can be sorted separately
Function	A function is a set formula that performs calculations using specific values in a particular order
Macro	A mini-program that performs repetitive tasks
Drop down list	Using data validation to create a list
What If…	The process of changing the values in cells to see how those changes will affect the outcome of formulas on the worksheet
Named range	Naming a range of cells to be used in a function

Key Formulas

Formula	Definition
=Sum	Adds the values of a cell range
=Average	Finds the average value of a range
=Max	Finds the maximum value in a range
=Min	Finds the minimum value in a range
=IF	Used to create an IF statement
=vlookup	Used to lookup information from a separate table
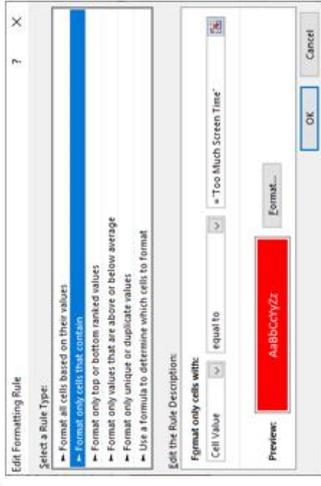
8.6 Database Knowledge Organiser

| Term	Definition
Database	A database is a collection of information that is organized so that it can be easily accessed, managed and updated.
Field	Single item of data about a single record in a database.
Record	Collection of fields that represent a single entity, such as a person.
Database Table	In databases, a collection of records representing a type of item.
Mail merge	The automatic addition of names and addresses from a database to letters and envelopes.
Field Names	An assigned name for a field (NAME, ADDRESS, CITY, STATE, etc.) that will be the same in every record.
Data	Computer data is information processed or stored by a computer. This information may be in the form of text documents, images, audio clips, software programs, or other types of data.
Data type	**Text** e.g. S Jones, **Number** e.g. 4,6, **Currency** e.g. £3.00, **Boolean** e.g. True/False Yes/No, **Date** e.g. 12/12/2012
Query or Interrogate	Searching the database for a particular information.
Boolean Searches	A method of searching on a computer using terms such as 'and', 'not', and 'or'.
GDPR	General Data Protection Regulations states that all companies or organisations which use customers' personal information must explain how they process this data. GDPR also requires that all information provided uses 'clear and plain language' and is 'concise, transparent, intelligible and easily accessible.
Filter	A filter in a database hides (filters out) unwanted records displaying only the records you want to see. For example, you might want to see only students that have good attendance.

AND

OR

NOT

Field

DATABASE

General Data Protection Regulation

QUERY

Boolean

'Mail Merge'
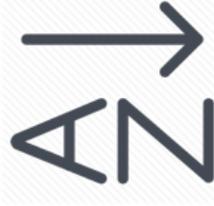
Drama-Interpreting script for performance

Using practitioners to influence the style of performance. You can use some of the methods or ideas of a particular practitioner, or more than one, in order to give your performance a particular style.

Stanislavski
- Realistic performance
- Realistic set and lighting
- No breaking of the fourth wall

Kneehigh
- Ensemble
- Music, song, puppetry and dance
- High energy and a playful style

Brecht
- Play has a social or political message
- V effect
- Bare or minimal set, lighting and costume

Physical Theatre
- Using movement to tell the story
- Canon and unison
- Physicalising emotions

Remember the choices you make about how to present your play can change the ordinary to the extraordinary....

Interpreting Script Vocabulary

Script — The text of a play

Given Circumstances — Facts we know from the script – who, where, when etc.

Stage Directions — An instruction in the script that can be about the set, lighting, how an actor looks or speaks etc.

Dialogue — Speech between characters

Subtext — Reading between the lines in order to understand the hidden meaning

Objective — What a character wants to achieve

Things to Consider

What is type of play and what is it about? — Is it a drama? Comedy? Does it have a message?

Who is the audience? — This will affect how you perform the play

What style of performance? — This will be influenced by the practitioner you are using

Drama – Devising & Verbatim Theatre

Performance Skills

Facial Expression — The feelings expressed on a character's face.

Body Language — The way in which a character communicates using gestures, movements and mannerisms.

Voice — The way in which the voice is used to present emotion using Tone (Emotion) / Pitch (High or Low) / Pace (Speed) / Volume (Loud or Quiet) / Accent (Region).

Space — The area between and around the actors / The theatre space in which the drama takes place.

Levels — Characters being visually higher or lower on stage than other characters.

Proxemics — Communicating to the audience what the relationship of the characters is like through the use of space/distance.

Tension — When the character is tense / The concept of making the audience want to know what will happen next.

Semiotics — The signs and symbols created on stage, that an audience finds meaning from (visual and audible).
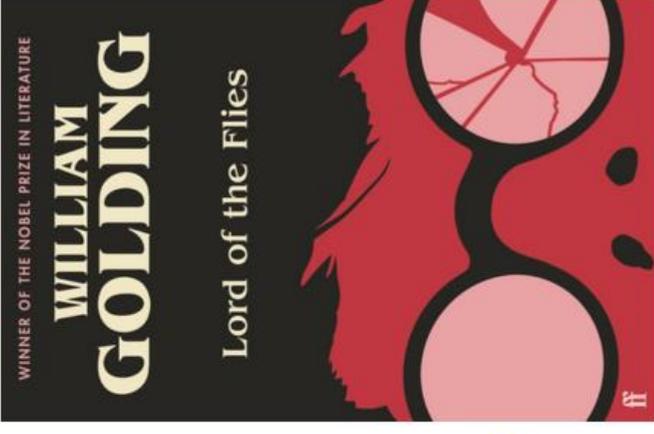
Character — A person represented by the actor.

Dialogue — Speech / Conversation between two or more people.

Verbatim Theatre

- Verbatim theatre takes the words of real people and puts them into the context of a play.
- Sometimes the interviewer's questions are included to create dialogue.
- Sometimes the questions are removed to create a monologue.
- The words are usually gathered by interviewing people and recording their responses.
- The words can also be gathered from interviews that have been broadcast on the television or radio.

Technical Terminology

Prop — Objects used on stage by actors during a performance.

Costume — A set of clothes worn by an actor in a particular role.

Set — Scenery used to identify the location of a scene / play.

Lighting — The arrangement of theatre lights to achieve dramatic effects.

Sound — The sound used to create atmosphere, emphasise what is happening on stage, set the scene, and indicate time or location.

Devising Techniques

Devising — A method of theatre-making in which the script originates from a performing ensemble (team) working collaboratively. Often using improvisation to develop the script.

Naturalistic Improvisation — When an actor performs a character as if they are a real person with real memories and beliefs. This requires 'empathy' (when an actor puts themselves in the character's shoes).

Mime — Suggesting action, character or emotion without words, using gesture, expression and movement. Effective mime requires the actor to:
- Have complete belief in what is being mimed
- Apply imaginative and convincing movement / facial expression
- Maintain size / shape / weight / location / positioning of objects that are mimed.

Monologue — When the character is speaking his or her thoughts aloud, directly addressing another character, or speaking to the audience. Effective monologues require:
- Eye Contact with the audience
- Vocals & movement to suit the character
- Emotional sincerity

Transitions — How performers creatively move from one scene to another.

Year 8, Summer Term: Symbolism
Core Text: Lord of the Flies (William Golding)

Symbolism refers to images or words that represent ideas beyond the literal. The interpretation of symbols relies on shared understandings in our culture. The story you will be reading, like all stories, is shaped by context. This piece was influenced by the author's experience as a commander in the Royal Navy in WW2. This influence can be seen through the ideas he explores in the text. These important ideas are represented through symbols. Ultimately, Golding explores the idea of civilisation, democracy and savagery. At the end of the term, we will be looking at how symbolism is a key component of poetry, exploring a range of poems to exemplify this.

Key Symbols in Lord of the Flies

As you read the book, look for these key symbols and try to record what each one represents:

- The beast
- The glasses
- The conch shell
- The setting/the island
- The Naval Officer

Key Vocabulary

Look up any vocabulary you are unfamiliar with.

Subject vocabulary
- setting
- character
- reflect
- idea
- representation/represent
- symbolism/symbolic
- metaphor
- transition

Grammar vocabulary
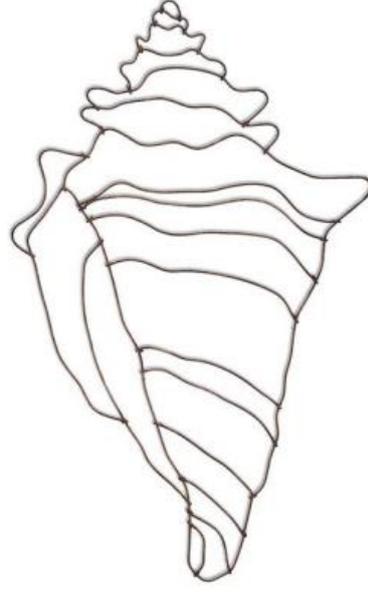- embedded clause
- present participle
- complex sentence

Text and theme vocabulary
- democracy
- conflict
- savagery/savage
- civilisation/civilised

Reading Assessment:

How does Golding use symbols to represent the conflict between civilisation and savagery?

The Writing Process:

* thesis statement: establish the key theme; include a reference to symbolism;

* topic sentence (identifying a symbol);

* text reference (embedded quotation);

* what is implied by this reference;

* how it is implied;

* what Golding might be trying to get across to the reader (link back to the thesis statement).

Example

Perhaps inspired by human capacity for evil that he observed in World War 2, Golding uses 'Lord of the Flies' to explore civilisation vs. savagery. There are a range of symbols that could represent this theme.

The conch could be seen as a symbol of democracy. Ralph—the elected leader of the group—declares that 'we can't have everybody talking at once' and that if somebody wishes to speak, they must raise their hand and they will be given the conch: this signals that it is their turn to speak and be heard. This implies that Ralph values freedom of speech, fairness and equality, which are important principles of democracy: he wants to ensure that everyone has the opportunity to hold the conch and express their views if they wish to. A democratic society is something that we strongly associate with civilisation.

Writing Assessment:

Write a short story about a character who fundamentally changes in some way; you should draw on symbolism to represent this change.

Think about:

♦ The change you want to show,

♦ How your plot will demonstrate this change

♦ How you will use symbols and symbolism in your writing: think about how you can use objects, characters and settings to show this change.

Topic 5: Fats and Oils

A small amount of fat is an essential part of a healthy, balanced diet. Fat is a source of essential fatty acids, which the body cannot make itself. It also provides energy and is converted into body fat to keep us warm and protect our vital organs.

Fat helps the body absorb vitamin A, vitamin D and vitamin E. These vitamins are fat-soluble, meaning they can only be absorbed with the help of fats.

The main types of fat found in food are:

- saturated fats from animal sources, including meat and dairy products, as well as some plant foods, like palm oil and coconut oil
- unsaturated fats found primarily in oils from plants and fish

As part of a healthy diet, you should try to cut down on foods and drinks high in saturated fats and replace some of them with unsaturated fats, for example using a low-fat spread instead of butter or olive oil instead of lard.
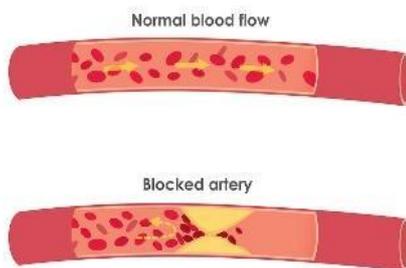
There's good evidence that replacing saturated fats with some unsaturated fats can help lower cholesterol which is a major cause of heart disease as it can block up your arteries. Too much fat in the diet can also lead to obesity and Type 2 diabetes.

Fats are used to spread on bread, as a cooking medium and for shortening and aeration. Deep-fat and shallow frying are popular ways of cooking food that add colour, flavour and texture to food - but it also adds unnecessary calories.

Shortening is when you add fat to biscuits or pastry to give them a crumbly texture. When fat is rubbed into the flour using the fingertips, it surrounds the flour particles with a waterproof coating – fats with high levels of plasticity, for example butter, are best for this. This stops water becoming absorbed and gluten being formed (the protein in flour). Gluten makes dough stretchy and baked products chewy and is ideal in bread making but not desirable in pastry which should be melt-in-the-mouth.

Fat also helps to trap air in a mixture to give a light, springy texture (aeration). In cake making, fat and sugar are creamed together and bubbles of air enclosed in the mixture to make a stable foam.

Topic 6: Adapting Recipes

For some people, following the Eatwell Guide is more challenging because they cannot, or choose not to, eat some of the food groups.

People with allergies and intolerances are not able to eat some foods because they cause severe reactions or unpleasant symptoms. Common food allergens include fish, nuts and sesame seeds. People with severe allergies should avoid all traces of these food as they can go into anaphylactic shock which can be very serious.

Gluten intolerance means that people need to find alternatives to some starchy foods like bread and pasta. Gluten-free flour is now available in most supermarkets and ready-made gluten-free products are also easier to find in shops.

There are also calcium-fortified dairy alternatives like soya milks, soya yoghurts and soya cheeses which can make good alternatives to dairy products for people with lactose intolerance.

Other people choose not to eat animal products because they are vegetarians or vegans. They do not agree that animals should be slaughtered for food or kept for human food production. There are many high protein alternatives for people who do not eat animal products including Quorn, quinoa and foods made from soya.

Choosing to eat only organic, Fairtrade or free range products is also becoming more popular. Organic foods are produced without any chemicals. Fairtrade foods are grown by people who receive a good deal for their produce. Free range farming is when animals are allowed to roam outside during the day rather than being kept indoors in large numbers (intensive farming). Some people are also concerned about food production and the environment – saying we should look for alternatives to rearing cattle such as eating insects (entomophagy).

People also adapt recipes to take account of their personal preferences (their likes and dislikes) or their religion, to make them cheaper, to make them healthier or to add variety to their diet.

French Y8 Summer term Knowledge Organiser Unit 4/5: Ma región/Le sport – My area/Sport

The comparative

You use the comparative to compare two or more things.

plus + adjective + *que* = **more … than**

moins + adjective + *que* = **less … than**

The adjective must agree with the first noun mentioned.

La natation est plus amusante que le rugby.
Swimming is **more** fun **than** rugby.

Le football est moins compliqué que la gymnastique.
Football is **less** complicated **than** gymnastics.

In English, we sometimes add -er to the adjective (bigger, easier), but you can't do this in French.

Reflexive verbs

Some verbs are reflexive and have a **reflexive pronoun** that goes before the verb.

They are often actions you do to yourself, such as verbs you use to talk about daily routine.

Se laver	To wash oneself
Je **me** lave	I wash **myself**
Tu **te** laves	You wash **yourself**
Il/Elle **se** lave	He/she washes **his/herself**
Nous **nous** lavons	We wash **ourselves**
Vous **vous** lavez	You (pl.) wash **yourselves**
Ils/Elles **se** lavent	They wash **themselves**

My routine

I get up at 6:00
I have breakfast at 6:10
I have a shower at 6:15
I get dressed at 6:25
I brush my teeth at 6:30
I do my hair at 6:45
I leave the house at 6:55
I wash myself at 10:20
I go to bed at 10:35

Quelle est ton opinion sur…? / What's your opinion on…?

Je trouve le tennis/la danse…	**I find tennis/dance…**
amusant(e)	fun
compliqué(e)	complicated
divertissant(e)	entertaining
fatigant(e)	tiring
intéressant(e)	interesting
passionnant(e)	exciting
relaxant(e)	relaxing
violent(e)	violent
ennuyeux/ennuyeuse	boring
difficile	difficult
facile	easy

Remember to make sure adjective endings agree for masculine/feminine

J'ái déménagé ! / I moved house!

Dans ma nouvelle maison il y a…	**In my new house there is…**
un salon	a living room
un bureau	an office
une cuisine	a kitchen
une salle de bains	a bathroom
trois chambres	3 bedrooms
un jardin	a garden
nouveau/nouvelle	new
beau/belle	beautiful
vieux/vieille	old

Qu'est-ce qu'on peut faire comme sport dans ta région ? / What sport can you do in your area?

Dans ma ville/mon village… In my town/village….

On peut jouer… You can play…
- au basket — basketball
- au billard — snooker
- au foot(ball) — football
- au handball/volleyball — Handball/volleyball
- au tennis (de table) — (table) tennis
- au rugby/hockey — rugby/hockey

On peut faire… You can do…
- du footing — jogging
- du ski — skiing
- du judo — judo
- du vélo/du cyclisme — cycling
- du patin à glace — ice skating
- de la danse — dance
- de la gymnastique — gymnastics
- de la musculation — weight training
- de la natation — swimming
- de la voile — sailing
- de l'athlétisme — athletics
- de l'équitation — horse riding

Prepositions

Jouer +	au = masc	à l' = vowel
	à la = fem	aux = plural

Faire +	du = masc	de l' = vowel
	de la = fem	des = plural

Tu es sportif/sportive ? / Are you sporty?

Je suis (assez) sportif/sportive	I'm (quite) sporty
Je ne suis pas (très) sportif/sportive	I'm not (very) sporty
Je joue au rugby	I play rugby
Je fais du judo	I do judo
Je fais de la natation	I do swimming
Je suis membre d'un club/une équipe	I'm a member of a club/team
Je m'entraîne deux fois par semaine	I train twice a week
Mon héroïne sportive est…	My sporting heroine is…
Mon héros sportif est…	My sporting hero is…

Ma routine

Je me lève à six heures	
Je prends le petit déjeuner à six heures dix	
Je me douche à six heures et quart	
Je m'habille à six heures vingt-cinq	
Je me lave les dents à six heures et demie	
Je me coiffe à sept heures moins le quart	
Je quitte la maison à sept heures moins cinq	
Je me lave à dix heures vingt	
Je me couche à onze heures moins vingt-cinq	

French — Y8 Summer term Knowledge Organiser — Unit 5: Le sport et la santé – Sport & health

Le corps / The body

Le corps	The body
le bras	arm
le dos	back
le cou	neck
le pied	foot
le ventre	stomach
le genou	knee
le nez	nose
la jambe	leg
la bouche	mouth
la gorge	throat
la tête	head
l'épaule	shoulder
l'œil/les yeux	eye/eyes
les dents	teeth
les doigts	fingers
l'oreille	ear

Vous allez bien ? / Are you well?

Ça ne va pas.	I'm not well
J'ai mal au bras	My arm hurts
J'ai mal au ventre	I've got stomach ache
J'ai mal à la gorge	I've got a sore throat
J'ai mal à la tête	I've got a headache
J'ai mal à l'oreille	I've got ear ache
J'ai mal aux yeux	My eyes hurt
J'ai mal aux dents	I've got toothache
J'ai un rhume	I've got a cold
J'ai de la fièvre	I've got a temperature
J'ai la grippe	I've got the flu
Je me suis blessé(e)…	I've hurt my…
…au pied	foot
…à la jambe	leg
…à l'épaule	shoulder
…aux genoux	knees

To say something hurts, use *'J'ai mal'* + the body part and correct preposition:

masc (le) = **au**   fem (la) = **à la**   vowel (l') = **à l'**   plural (les) = **aux**

Qu'est-ce qu'il faut faire ? / What must you do?

Il faut…	You must…
travailler dur	work hard
manger équilibré	eat a balanced diet
manger des fruits et des légumes	eat fruit and vegetables
aller à la salle de fitness	go to the gym
être motivé(e) et déterminé(e)	be determined and motivated
faire du sport	do sport
dormir huit heures par nuit	sleep 8 hours a night
boire de l'eau	drink water
Il ne faut pas…	**You mustn't…**
consommer de drogue	take drugs
fumer de cigarettes	smoke cigarettes
manger du fastfood	eat fast food

Il faut

Il faut means 'it is necessary to/you must'. It is followed by an infinitive :

Il faut manger des légumes – you must **eat** vegetables.
Il ne faut pas fumer – you must **not smoke**

Pour aller… / How do I get to…

Pour aller…	How do I get to…
au stade/au lac ?	the stadium/the lake?
au centre aquatique ?	the aquatic centre?
au vélodrome ?	the velodrome?
au parking/au restaurant ?	the car park/the restaurant?
au bureau d'information ?	the information office?
à la piste d'athlétisme ?	the athletics track?
à la salle de gymnastique ?	the gymnastics hall?
à la gare SNCF ?	the train station?
à la gare routière ?	the bus station?
à l'hôtel ?	the hotel?
aux courts de tennis ?	the tennis courts?
aux magasins ?	the shops?
aux toilettes ?	the toilets?

Les directions / Directions

Les directions	Directions
Allez tout droit	Go straight on
Tournez à droite	Turn right
Tournez à gauche	Turn left
Prenez la première rue à droite	Take the 1st road on the right
Prenez la deuxième rue à gauche	Take the 2nd road on the left

Depuis (since)

Use *depuis* to say how long you have been ill:

Depuis hier – Since yesterday
*Depuis trois jours – For 3 days*
Depuis une semaine – For one week

Les conseils / Advice

Il faut…	You must
rester au lit	stay in bed
utiliser une crème	use a cream
mettre un pansement	put on a bandage
prendre des antidouleurs	take some painkillers
boire beaucoup d'eau	drink lots of water

Le sport – passé, présent, futur / Sport – past, present, future

Le sport – passé, présent, futur	Sport – past, present, future
Je suis membre d'une équipe locale	I'm a member of a local team
Je joue un match tous les samedis	I play a match every Saturday
Je marque beaucoup de buts	I score a lot of goals
Je gagne un match	I win a match
Je vais être membre de l'équipe nationale	I'm going to be on the national team
Je vais jouer pour la France	I'm going to play for France
Je vais marquer beaucoup d'essais	I'm going to score lots of tries
Je vais gagner la Coupe du Monde	I'm going to win the World Cup
J'ai joué en compétition	I played in a competition
J'ai marqué beaucoup de points	I scored lots of points
J'ai gagné une médaille aux Jeux Olympiques	I won a medal at the Olympics

Year 8 Geography: Ecosystems and economics

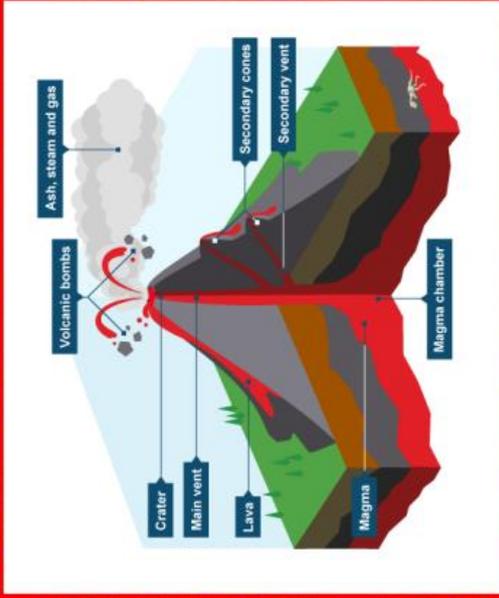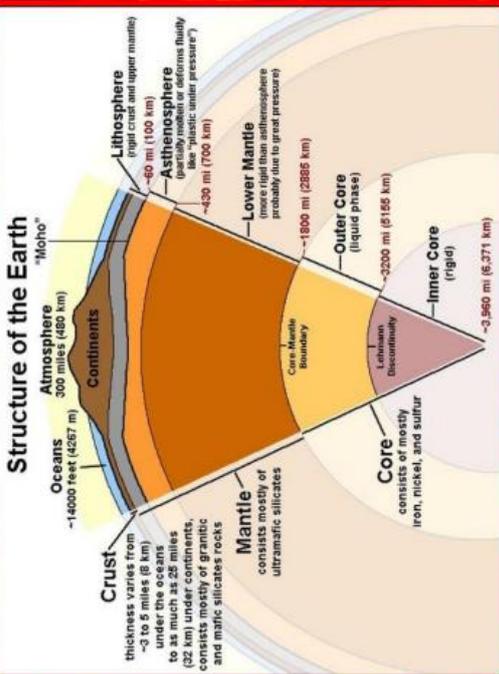| Key Term	Definition
Economy	The way in which goods and services are made, sold, and used in a country. There are four sectors included in this.
Primary Sector	The primary sector includes all those activities the end purpose of which consists in exploiting/using natural resources: agriculture, fishing, forestry, mining, deposits.
Secondary sector	Making things (manufacturing) from raw material from the primary sector. Jobs include factory work, steelwork, and building of roads, houses and transport.
Tertiary sector	This involves providing a service to others. Jobs include teacher, nurses and cleaners, but also involves the selling of goods and services.
Quaternary sector	Involves research and development. In this sector people have high-level expertise and skills developing new technology or medical treatment. The recent race to create a vaccination for Covid-19 is an excellent example.
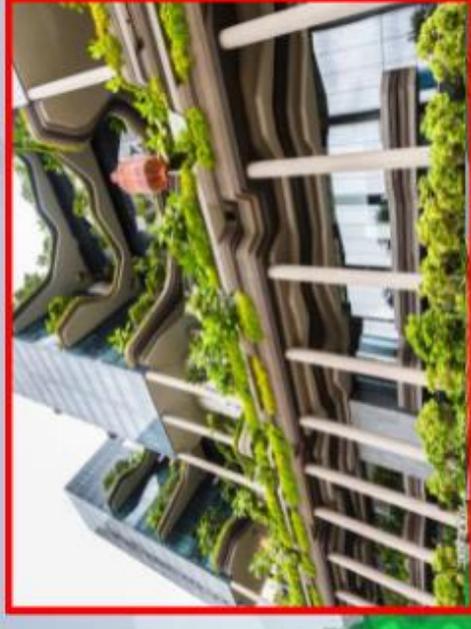
Key ideas

An **ecosystem** is the interaction of living and non-living things. Living components include plants and animals. Non-living components are things such as soil, sunlight and rainfall.

A **biome** is a large specific geographical area notable for its living components. For example deserts, tropical rainforests and tundra.
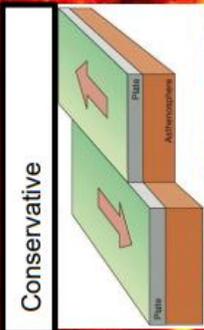
Development is the progress of a country in terms of economic growth, use of technology and standard of living. The island of Borneo is ruled by three different countries. The island has suffered huge rates of deforestation, 50% in 70 years. Indonesian Borneo, ruled by dictator Suharto has used the natural resources such as hardwood, as a raw material to trade with and promote economic development. There is widespread damage and habitat loss. Today many areas of rainforest have been cleared for palm oil plantations. Palm oil is used across the world is everyday products such as crisps, bread, biscuits, soap and shampoo.

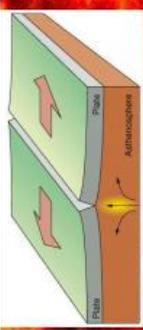# Year 8 Geography: Plate Tectonics

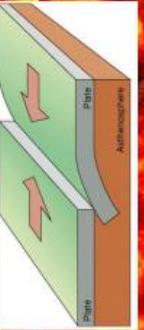| Key Term	Definition
Lahars	Volcanic mudslide
Pyroclastic flow	Super-heated explosion
Flooding	Glacier melt or river overflow
Ash clouds	Dense ash plumes
Volcanic bombs	Flying molten rock
Lahars	Volcanic mudslide

Structure of the Earth

Key ideas

Earthquakes and volcanoes are primarily found at **plate boundaries.** The plates are like giant rafts that **slowly move** around. At the boundaries between plates, **molten magma** is able to force its way to the surface and escape as **lava.**

An **earthquake is a sudden shockwave** caused by rocks being under stress from the movements of plates at plate boundaries. Eventually the stress in the rock builds up enough to deform and reach breaking point. At that point, the stored up energy is released in the form of **shockwaves.**

Unlike earthquakes, volcanoes can also have a positive impact on an area. Examples include income from **tourism, geothermal energy** and **fertile soil for agriculture.**

Type of volcano

Fissure (vent)

Shield

Composite (layers)

Type of plate boundary

Conservative

Constructive

Destructive

Y8 German - Summer Term 1

Kleider/ Klamotten
Clothes

der Rock	skirt
der Mantel	coat
der Anzug	suit
der Kapuzenpulli	hoodie
die Jeanshose/ die Jeans	jeans
die Hose	trousers
das Kleid	dress
das Hemd	shirt
das T-Shirt	T-shirt
die Schuhe	shoes
die Stiefel	boots
die Sandalen	sandals

Wie ist es? What is it like?

kurz	short
lang	long
weit	wide-leg/ baggy
schmal	slim-leg/ skinny
schick	smart
locker	casual
kariert	checkered
gepunktet	spotty/ polka dot
gestreift	stripy
glänzend	glittery

Wie ist dein Stil?
What is your style?

lässig	informal
trendig	trendy
sportlich	sporty
klassisch	classic

High frequency words

wenn	when/ if
immer	always
zum Beispiel	for example
zuerst	first of all
seit	since/ for
für	for
möglich	possible
pro Jahr	per year
nächstes Jahr	next year
teuer	expensive
alle	all/ everyone
um… zu	in order to

Was trägst du? What do you wear? What are you wearing?

ich trage…	I wear/ I am wearing
einen kurzen Rock	a short skirt
einen langen Mantel	a long coat
einen lockeren Kapuzenpulli	a casual hoodie
eine weite Hose	a baggy pair of trousers
eine schmale Jeanshose	a pair of skinny jeans
ein kariertes Hemd	a checkered shirt
ein gepunktetes Kleid	a spotty dress
ein gestreiftes T-Shirt	a stripy T-shirt
schicke Stiefel	smart boots

Five key words

die Schuhe	the shoes
trendig	trendy
ich ziehe mich an	I get dressed
einige Leute	some people
viele Kinder	many children

ein erstes Date A first date

Was wirst du machen?	What will you do?
ich werde…	I will…
die Karten im Voraus kaufen	buy the tickets in advance
einen guten Film auswählen	choose a good film
früh ankommen	arrive early
abholen	pick up
etwas Schickes anziehen	put on something smart
genug Geld mitnehmen	take enough money with me
mit dem Bus in die Stadt fahren	go by bus to town
ins Kino gehen	go to the cinema
essen gehen	go out to eat

ich mache mich fertig I get myself ready

ich style mir die Haare	I style my hair
ich mache mir die Haare	I do my hair
ich putze mir die Zähne	I brush my teeth
ich schminke mich	I put on make-up
ich ziehe mich an	I get dressed
ich sehe mich im Spiegel an	I look at myself in the mirror
ich benutze ein Deo	I put on deodorant
ich wähle meine Kleider aus	I choose my clothes

Diskussion und Debatte Discussion and debate

Viele/ Einige Leute sagen	Many/some people say
Meiner Meinung nach	In my opinion
Erstens	Firstly
Zweitens	Secondly
Schließlich	Finally
Du hast gesagt … aber ich denke	You said… but I think
Auf der einen Seite	On the one hand

Y8 German - Summer Term 2

Key verbs:

haben – to have	ich habe…
sein – to be	ich bin/er ist…
lesen – to read	ich lese/ sie liest
sehen – to watch	ich sehe / er sieht
hassen – to hate	ich hasse
lieben – to love	ich liebe
mögen – to like	ich mag/wir mögen
nehmen – to take	ich nehme / er nimmt
trinken – to drink	ich trinke
essen – to eat	ich esse / er isst
müssen – to have to	ich muss…/er muss…
dürfen – to be allowed to	ich darf…
aufstehen – to get up	ich stehe auf
sich duschen – to shower	ich dusche mich
sich waschen – to wash	ich wasche mich

sich anziehen – to get dressed
ich ziehe mich an
abwaschen – to do the washing up
ich wasche ab

rauchen – to smoke	ich rauche nicht
ausgehen – to go out	ich gehe aus

zurükkommen – to come back
ich komme zurück

tragen – to wear	ich trage /sie trägt

Key past tense sentences with 'haben':
Ich habe… gemacht – I did
Ich habe… gelesen – I read
ich habe… gewohnt – I lived
ich habe… gekauft – I bought
ich habe… gegessen – I ate
ich habe… getrunken – I drank
ich habe… gespielt – I played
ich habe… gehört – I listened
ich habe… gesehen – I saw/watched

Key past tense sentences with 'sein:
ich bin… geblieben – I stayed
ich bin… gegangen – I went
ich bin… gefahren – I went (drove/travelled)
ich bin… geflogen – I flew

Key nouns:
die Stadt – town
Marktplatz – town square
Hafen – harbour
Ferienhaus – holiday house
Kirche – church
Einkaufszentrum – shopping mall
Jugendherberge – youth hostel
Komödie – comedy
Zeichentrickfilm – cartoon
Dokumentation – documentary
Nachrichten – news
Seifenopern – soap operas
Zeitschrift – magazine
Zeitung – newspaper
Stunden – hours
Woche – week
Tag – day
Schinken – ham
Brötchen – bread roll
Käse – cheese
Obst – fruit
Gemüse – vegetables
Ei/Eier – egg/ eggs
Wasser – water
Bushaltestelle – bus stop
Imbissstube – snack bar
Hallenbad – indoor pool
Eiscafé – ice cream parlour
Umzug – procession
Kirmes – fun fair
Rock – skirt
Mantel – coat
Hemd – shirt
Kleid – dress
Kapuzenpulli – hoodie
Anzug – suit
Stiefel – boots
Schuhe - shoes

Key adjectives:
klein – small
groß – big
schön – beautiful
ruhig – quiet
blöd – stupid
schrecklich – terrible
langweilig – boring
spannend – exciting
unterhaltsam - entertaining
gesund – healthy
süchtig – addicted
süß – sweet
sauer – sour
scharf – spicy
lecker – yummy
ekelhaft – disgusting
geradeaus – straight
links – left
rechts - right
schick - trendy
gestreift – striped
kariert - checked

Key transport:
zu Fuß – by foot
mit dem Auto – by car
mit dem Boot – by boat
mit dem Reisebus – by coach
mit dem Zug – by train
mit dem Flugzeug – by plane

Key places:
bei Freunden – at friends'
in die Stadt – into town
ins Kino – to the cinema
im Schlafzimmer – in the bedroom
bis zur Ampel – until the lights
an der Kreuzung – at the cross roads

Project: Film study – key words:
Mein Lieblingscharakter ist…   - my favourite character is…
Meine Lieblingsszene ist…   - my favourite scene is…
Ich finde den Film….   - I find the film…
Ich finde die Schauspieler*innen…   - I find the actors/actresses…
im Berwerk – in the mine
im Stadion – in the stadion
am Abendtisch – at the dinner table

aggressiv - aggressive
traurig - sad
aufregend - exciting
Weltmeisteschaft – world cup
Schweiz - Switzerland
Weltkrieg – world war
Kneipe - pub
hat… gewonnen – has won

History

French Revolution

Chronology

1883	End of the American Revolutionary War
1789	French Revolution
1793	Execution of Louis XVI and Marie Antoinette
1804	Napoleon crowned emperor of France
1815	Battle of Waterloo
1819	Peterloo Massacre

Key People

Key People	Role
Louise XVI	King of France (1774-1792)
Marie Antoinette	King Louis XVI's Austrian wife and queen.
Maximilen Robespierre	One of the leaders of the French Revolution. Often held responsible for the period known as 'The Terror'.
Napoleon Bonaparte	Emperor of France post-Revolution.

Key Words

Key Words	Definition
Third Estate	Most of the population of France – everyone who wasn't clergy (First Estate) or nobility (Second Estate).
Liberté	French for "Liberty" (freedom). One of the three ideals of the revolution.
Égalité	French for "Equality". One of the three ideals of the revolution.
Fraternité	French for "Fraternity" (brotherhood or friendship). One of the three ideals of the revolution. "Liberté, Égalité, Fraternité" is still the slogan of the French Republic today.
Guillotine	A new method of execution by decapitation.
Peterloo	A massacre of peaceful protesters by British soldiers at St. Peter's Field in Manchester. The name is a play on words of the Battle of Waterloo which happened four years earlier.

Common misconceptions

Marie Antoinette never said 'Let them eat cake' upon learning that the peasants had no bread to eat. The phrase had been recorded many years earlier but it came to signify the disregard of the monarchy for the ordinary person.

When the protesters stormed the Bastille, they didn't intend for it to get as aggressive as it did. They were just looking for gunpowder and supplies. There were also only seven prisoners being held there at the time.

ABOVE: Image highlighting the Ancien Regime of the poor carrying the rich at the bottom of the Feudal System.

RIGHT: The breakdown of the Estates System in France before the Revolution.

FRENCH REVOLUTION ESTATES SYSTEM

CLERGY 100,000 — 6% LAND OWNERSHIP (1st ESTATE)
NOBILITY 400,000 — 20% LAND OWNERSHIP (2nd ESTATE)
PEASANTS 24,000,000 — NO LAND OWNERSHIP (3rd ESTATE)

History
The British Empire

Chronology	
1600	East India Company (EIC) set up.
1757	Battle of Plassey
1770	Captain James Cook discovers Australia
1807	Slave Trade abolished by British Parliament
1833	Slavery abolition Act
1845	The Potato Famine
Mid 1850s	Most of India controlled by the British
1857	Indian mutiny or the War of Independence
1858	First Viceroy put in charge of India
1879	Zulu War
1899	Boer War

Key People	Role
Queen Victoria	British monarch from 137-1901. She gave herself the title 'Empress of India'.
Robert Clive	Clive was the East India company's military commander. He spent years in India fighting the French and rival Indian princes for control.
Thomas Clarkson	Born in Wisbech. A leading campaigner against the slave trade
William Wilberforce	A British politician and leader of the movement to abolish the slave trade.
Olaudah Equiano	A former slave, writer and abolitionist from the Eboe region of the Kingdom of Benin.

Key Words	Definition
Empire	A collection of areas of land (or whole countries) that are ruled over and controlled by one leading 'mother' country.
Colony	An area of land controlled by another country.
Blight	A destructive fungal disease which led to the Potato famine.
Pilgrim Fathers	The Pilgrims were the English settlers who came to North America on the Mayflower and established the Plymouth Colony
Lascar sailors	Indian sailors who served on board British ships.
Mutiny	The act of refusing to follow the orders of a person in authority.
Sepoy	An Indian soldier serving British authorities.
Mugal	Muslim rulers of India from 1500, they lost control by the early 1700s.
Viceroy	Someone who rules in another country or colony on behalf of the monarch.
Plantation	A huge farm that grows cotton, sugar, tobacco; a plantation owner normally used slaves to do the work.
Abolish	To bring to an end; for example, the slave trade.

Books/websites/films

Freedom by Catherine Johnson – 12-year old Nathaniel is a slave, sent to England. Life in London is tough and Nat seizes the first opportunity to escape.

https://www.bbc.co.uk/bitesize/topics/zsnp34j

https://www.bbc.co.uk/teach/class-clips-video/history-ks3-gcse-empire/znkkt39

1922

Empire population = 458 million people
% of world population

BRITISH TERRITORY
REST OF THE WORLD
Largest territory
George V

LARGEST EMPIRES IN HISTORY

MAX LAND AREA

BRITISH EMPIRE (1922)	33,700,000 km²
MONGOL EMPIRE (1279)	33,000,000 km²
RUSSIAN EMPIRE (1866)	22,800,000 km²

Year 8 Knowledge Organiser
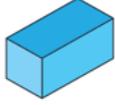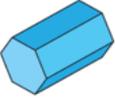# 3D SHAPES, CAPACITY AND VOLUME

Key Concept
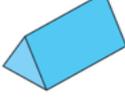
Cube
Faces – 6
Edges – 12
Vertices – 8

Cuboid
Faces – 6
Edges – 12
Vertices – 8

Hexagonal Prism
Faces – 8
Edges – 18
Vertices – 12

Triangular Prism
Faces – 5
Edges – 9
Vertices – 6

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Clip Numbers
568-571,698,699

Key Words

Volume: The amount of space that an object occupies.
Capacity: The amount of space that a liquid occupies.
Cuboid: 3D shape with 6 square/rectangular faces.
Vertices: Angular points of shapes.
Face: A surface of a 3D shape.
Edge: A line which connects two faces on a 3D shape.

Tip
Remember the units are cubed for volume.

Formula
$$Cuboid\ Volume = l \times w \times h$$
$$Prism\ Volume = area\ of\ cross\ section \times length$$

Examples
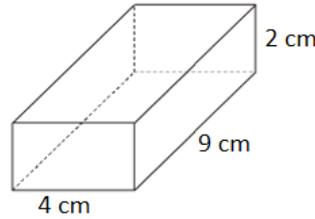
$$Volume = 4 \times 9 \times 2$$
$$= 72cm^3$$
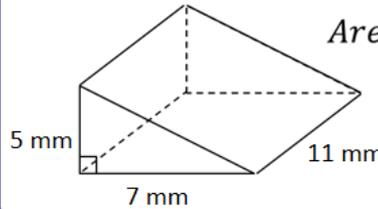
$$Area\ of\ triangle = \frac{5 \times 7}{2}$$
$$= 17.5mm^2$$
$$Volume = 17.5 \times 11$$
$$= 192.5mm^3$$

Questions
Find the volume of these shapes: 1) 8 cm, 40 cm, 18 cm 2) 4 m, 9 m, 9 m
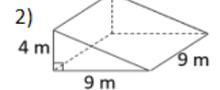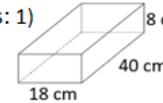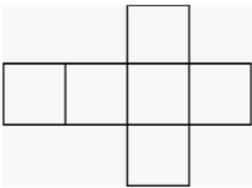
ANSWERS: 1) 5760 cm³   2) 162 m³

Year 8 Knowledge Organiser
3D GEOMETRY – PLANS & ELEVATIONS

Key Concept

Net of Cube

Net of Cuboid

Tip
Remember the units are squared for surface area.

hegartymaths
Clip Numbers
837-844, 584
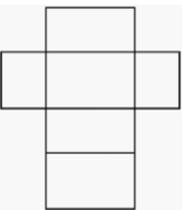
Key Words

Isometric: A visual way to represent 3D objects.
Plan view: Viewing an object from above.
Front Elevation: Viewing an object from the front.
Side Elevation: Viewing an object from the side.
Surface Area: Finding the total area of each face of a 3D object.

Formula
$$Cuboid\ Surface\ area = 2lw + 2wh + 2hl$$

ANSWERS: 1) 256cm²   2) 262cm²

Examples

Plan
Front elevation
Side elevation

Front 3 = 18
6
Right Side 3 = 33
11
Top 6 = 66
11

3 cm, 11 cm, 6 cm

Front & Back (2 × 18) = 36
Right & Left Side (2 × 33) = 66
Top & Bottom (2 × 66) = 132
Total Surface Area = 234 cm²

Questions
Find the surface area of these cuboids:

4cm, 5cm, 12cm

8 cm, 5 cm, 7 cm
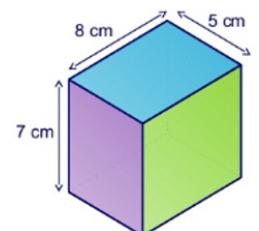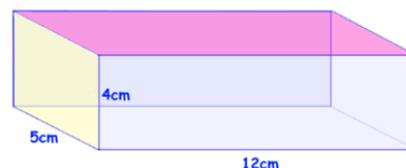
Year 8 Knowledge Organiser
PRESENTING DATA

Key Concept
Types of chart

- Tally chart/Frequency Table - A record of how often each value in a set of data occurs.
- Pictogram - shows information as pictures, must have a key to show how much each picture is worth 🚗 = 4 cars
- Bar Chart - x — axis shows the type of data, y — axis shows the frequency for each type of data.
- Pie Chart – Remember there are 360° around a point
- Line Graph - A graph that uses points connected by straight lines to show how data changes in values (usually over time)
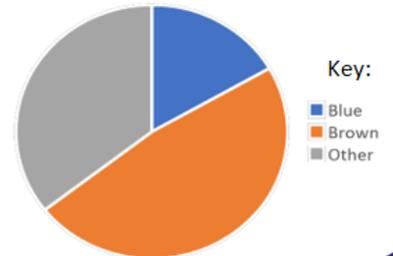
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Clip Numbers
425 – 333

Tips
Bar charts have gaps between the bars and each bar is the same width.
Frequency = Total.

Examples

There are 90 people altogether so we share the 360° between them. Each person is worth 4°

$$\frac{360}{90} = 4$$

Eye colour

Eye colour	Frequency	
Blue	15	× 4 = 60
Brown	43	× 4 = 172
Other	32	× 4 = 128
	= 90	= 360

Key:
- ■ Blue
- ■ Brown
- ■ Other

Questions

Show this data in a
a) Tally chart
b) Pictogram
c) Bar chart
d) Pie chart
e) Why would a line graph be an inappropriate way to show this data?

Age	Frequency
11	17
12	11
13	8

Year 8 Knowledge Organiser
INTERPRETING DATA

Key Concept
Types of data

Primary Data – collected by you.
Secondary Data – collected by someone else.

Quantitative Data – numerical data (numbers)
Qualitative Data – non-numerical data (e.g. eye colour)
Continuous Data – data that can take any numerical value within a given range.
Discrete Data – data that can take only specific values within a given range.
Grouped Data – data that can be organised in categories

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Clip Numbers
404 – 410, 413-421, 392-393

Key Words

Frequency: Total.
Mean: Total of data divided by the number of pieces of data.
Mode: The value that occurs most frequently.
Median: Middle number when they are in order.
Range: Difference between the largest and smallest values.

Tips
- There can be more than one mode.
- Range is a measure of spread, not an average.

Examples

5, 9, 9, 9, (11) 12, 13, 15, 16

Averages

$$Mean = \frac{5 + 9 + 9 + 9 + 11 + 12 + 13 + 15 + 16}{9} = \frac{99}{9} = 11$$

Median = 11 (The middle number in the ordered list shown above)

Mode = 9 (This number occurs most often)

Measure of Spread

Range = 16 − 5 = 11 (Largest number − smallest number)

Questions

1) Find the mean, mode, median and range of:
   a) 3, 12, 4, 6, 8, 5, 4   b) 12, 1, 10, 1, 9, 3, 4, 9, 7, 9
2) a) You collect some data about the people in your Maths class. Is this primary or secondary data?
b) Height is an example of [quantitative/qualitative] [continuous/discrete] data
c) Shoe size is an example of [quantitative/qualitative] [continuous/discrete] data

Computer and Video Game Music
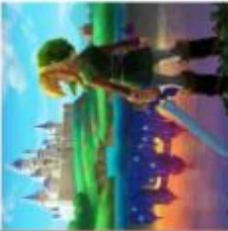
Early Computer and Video Game Music

Early video game music consisted primarily of **SOUND EFFECTS** (an artificially created or enhanced sound used to emphasize certain actions within computer and video games), **CHIPTUNES** or **8-BIT MUSIC** (a style of electronic music which used simple melodies made for programmable sound generator (PSG) sound chips in vintage computers, consoles and arcade machines) and early sound **SYNTHESISER** technology (an electronic musical instrument that generates audio signals that may be converted to sound). **SAMPLING** (the technique of digitally encoding music or sound and reusing it as part of a composition or recording) began in the 1980's allowing sound to be played during the game, making it more realistic and less "synthetic-sounding".

How Computer and Video Game Music is Produced

Fully-orchestrated **SOUNDTRACKS** (video game music scores) are now popular – technology is used in their creation but less in their performance. The composer uses **MUSIC TECHNOLOGY** to create the score, it is then played by an **ORCHESTRA** and then digitally converted and integrated into the game. Video game **SOUNDTRACKS** have become popular and are now commercially sold and performed in concert with some radio stations featuring entire shows dedicated to video game music.

How Computer and Video Game Music is used within a Game

Music within a computer or video game is often used for **CUES** (knowing when a significant event was about to occur).

Video game music is often heard over a game's title screen (called the **GROUND THEME**), options menu and bonus content as well as during the entire gameplay. Music can be used to **INCREASE TENSION AND SUSPENSE** *e.g. during battles and chases*, when the player must make a decision within the game (a **DECISION MOTIF**) and can change, depending on a player's actions or situation *e.g. indicating missing actions or "pick-ups"*.
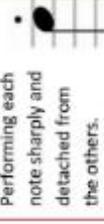
Musical Features of Computer and Video Game Music

STACCATO ARTICULATION	CHROMATIC MOVEMENT	SYNCOPATION
Performing each note sharply and detached from the others. Shown by a dot.	Melodies and bass lines that ascend or descend by semitones.	Accenting the weaker beats of the bar to give an "offbeat" "jumpy feel to the music.

JUMPING BASS LINE
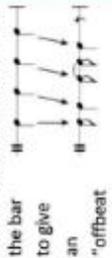Where the bass line often moves by **LEAP (DISJUNCT MOVEMENT)** leaving 'gaps' between notes

Chromatic Scale

Character Themes in Computer and Video Game Music

Characters within a video game can also have their own **CHARACTER THEMES** or **CHARACTER MOTIFS** – like **LEITMOTIFS** within Film Music. These can be manipulated, altered and changed – adapting the elements of music – **ORCHESTRATION** (the act of arranging a piece of music for an orchestra and assigning parts to the different musical instruments), **TIMBRE, SONORITY, TEXTURE, PITCH, TEMPO, DYNAMICS** – depending on the character's situation or different places they travel to within the game.

Famous Computer and Video Game Music Composers and their Soundtracks

Koji Kondo
Super Mario Bros. (1985)
The Legend of Zelda (1986)

Michael Giacchino
The Lost World: Jurassic Park (1997)
Medal of Honour (1999)
Call of Duty (2003)

Mieko Ishikawa
Dragon Slayer (1993)

Martin O'Donnell and Michael Salvatori
Halo (2002)

Daniel Rosenfield
Minecraft (2011)

Rom Di Prisco
Fortnite (2017)

SOUNDTRACKS

Exploring Film Music

A. The Purpose of Music in Film

Film Music is a type of DESCRIPTIVE MUSIC that represents a MOOD, STORY, SCENE or CHARACTER through music, it is designed to SUPPORT THE ACTION AND EMOTIONS OF THE FILM ON SCREEN. Film Music can be used to:

- Create or enhance a mood (though the ELEMENTS OF MUSIC) ->
- Function as a LEITMOTIF (see D)
- To emphasise a gesture (MICKEY-MOUSING – when the music fits precisely with a specific part of the action in a film e.g. cartoons)
- Provide unexpected juxtaposition/irony (using music the listener wouldn't expect to hear giving a sense of uneasiness or humour!)
- Link one scene to another providing continuity
- Influence the pacing of a scene making it appear faster/slower
- Give added commercial impetus (released as a SOUNDTRACK) – sometimes a song, usually a pop song is used as a THEME SONG for a film.
- Illustrate the geographic location (using instruments associated with a particular country) or historical period (using music 'of the time').

D. Leitmotifs

LEITMOTIF – A frequently recurring short melodic or harmonic idea which is associated with a character, event, concept, idea, object or situation which can be used directly or indirectly to remind us of one not actually present on screen. Leitmotifs can be changed through SEQUENCING, REPETITION or MODULATION giving a hint as to what may happen later in the film or may be heard in the background giving a "subtle hint" to the listener e.g. the *"Jaws" Leitmotif*

E. History of Film Music

Early films had no soundtrack ("SILENT CINEMA") and music was provided live, usually IMPROVISED by a pianist or organist. The first SOUNDTRACKS appeared in the 1920's and used existing music (BORROWED MUSIC – music composed for other (non-film) purposes) from composers such as Wagner and Verdi's operas and ballets. In the 1930's and 1940's Hollywood hired composers to write huge Romantic-style soundtracks. JAZZ and EXPERIEMENTAL MUSIC was sometimes used in the 1960's and 1970's. Today, film music often blends POPULAR, ELECTRONIC and CLASSICAL music together in a flexible way that suits the needs of a particular film.

B. How the Elements of Music are used in Film Music

PITCH AND MELODY – RISING MELODIES are often used for increasing tension, FALLING MELODIES for defeat. Westerns often feature a BIG THEME. Q&A PHRASES can represent good versus evil. The INTERVAL OF A FIFTH is often used to represent outer space with its sparse sound.

DYNAMICS – FORTE (LOUD) dynamics to represent power; PIANO (SOFT) dynamics to represent weakness/calm/resolve. CRESCENDOS used for increasing threat, triumph or proximity and DECRESCENDOS or DIMINUENDOS used for things going away into the distance. Horro Film soundtracks often use EXTREME DYNAMICS or SUDDEN DYNAMIC CHANGES to 'shock the listener'.

HARMONY – MAJOR – happy; MINOR – sad. CONSONANT HARMONY OR CHORDS for "good" and DISSONANT HARMONY OR CHARDS for "evil". SEVENTH CHORDS often used in Westerns soundtracks.

DURATION – LONG notes often used in Westerns to describe vast open spaces and in Sci-Fi soundtracks to depict outer space; SHORT notes often used to depict busy, chaotic or hectic scenes. PEDAL NOTES – long held notes in the BASS LINE used to create tension and suspense.

TEXTURE – THIN/SPARE textures used for bleak or lonely scenes; THICK/FULL textures used for active scenes or battles.

ARTICULATION – LEGATO for flowing or happy scenes, STACCATO for 'frozen' or 'icy' wintery scenes. ACCENTS (>) for violence or shock.

RHYTHM & METRE – 2/4 or 4/4 for Marches (battles), 3/4 for Waltzes, 4/4 for "Big Themes" in Westerns. IRREGULAR TIME SIGNATURES used for tension. OSTINATO rhythms for repeated sounds e.g. horses.

C. Film Music Key Words

SOUNDTRACK – The music and sound recorded on a motion-picture film. The word can also mean a commercial recording of a collection of music and songs from a film sold individually as a CD or collection for digital download.

MUSIC SPOTTING – A meeting/session where the composer meets with the director and decides when and where music and sound effects are to feature in the finished film.

STORYBOARD – A graphic organiser in the form of illustrations and images displayed in sequence to help the composer plan their soundtrack.

CUESHEET – A detailed listing of MUSICAL CUES matching the visual action of a film so that composers can time their music accurately.

CLICK TRACKS – An electronic METRONOME which helps film composers accurately time their music to on-screen action through a series of 'clicks' (often heard through headphones) – used extensively in cartoons and animated films.

DIEGETIC FILM MUSIC – Music within the film for both the characters and audience to hear e.g. *a car radio, a band in a nightclub or sound effects*. NON-DIEGETIC FILM MUSIC – Music which is put "over the top" of the action of a film for the audience's benefit and which the characters within a film can't hear – also known as UNDERSCORE or INCIDENTAL MUSIC.

F. Film Music Composers and their Soundtracks

Jerry Goldsmith
Planet of the Apes
Star Trek: The Motion Picture
The Omen
Alien

John Williams
Star Wars
Jaws
Harry Potter
Indiana Jones
Superman, E.T.

James Horner
Titanic
Apollo 13
Braveheart
Star Trek II
Aliens

Ennio Morricone
The Good, The Bad and The Ugly
For a Few Dollars More
The Mission

Danny Elfman
Mission Impossible
Batman Returns
Men in Black
Spider Man

Hans Zimmer
The Lion King
Gladiator
Dunkirk
Blade Runner 2049
No Time to Die

Bernard Hermann
Psycho
Vertigo
Taxi Driver

8.5 KS3 Core PE Knowledge Organiser: Fitness Testing

Fitness Testing

Component	Test	Protocol
Body Composition	Body Mass Index	The calculation for BMI is as follows: Weight (kg)/ height (m²). Calculate score with BMI charts.
Coordination	Alternate Hand Wall Toss Test	Stand 2m away from a wall with a tennis ball in your hand. Throw the ball at the wall and catch it with the opposite hand. See how many catches you make in 30s.
Power	Vertical Jump Test	Stand next to a wall and reach up as high as you can making the highest point of your fingertips. Jump as high as you can making a second mark at the **highest point of the jump**. Measure the distance between the 2 marks on the wall.
Reaction Time	Ruler Drop Test	An assistant holds a 30cm ruler between you thumb and index finger Starting at 0cm,the assistant randomly drops the ruler and is caught with between the fingers. Take note of the cm measurement where it was caught.
Speed	30m Sprint Test	Measure out 30m in a straight line and mark with cones. On the shout of 'Go' run as fast as you can with an assistant timing you.
Balance	Stork Balance Test	Bend one knee and place the sole of the foot against the inside of the standing leg. Raise onto you tiptoes and start timing until you lose balance or the sole of the standing foot touches the floor.
Agility	Illinois Agility Run Test	Set out the course using cones. Start laying down on your stomach. When you hear go run and complete the course in as quick a time as possible.
Flexibility	Sit and Reach Test	Sitting with legs flat on the ground and feet against the sit and reach box, reach forward as far as you can and record distance on the scale on top of the box.
Muscular Endurance	1-Minute Sit-Up/Press Test	Complete the maximum amount of press ups or sit ups in 1 minute. Count the number that you complete.
Strength	Grip Dynamometer	Hold the dynamometer in your hand with the scale at 0. Squeeze the handle as hard as you can. Record the score on the scale.
Cardiovascular Fitness	12 Minute Cooper Run/swim	Run or swim for 12 minutes counting the number of laps you complete. Multiply the number of laps by the distance of each lap to give you the total distance covered in 12 minutes.

Benefits of fitness testing

- Allows you to see strengths and weaknesses in current fitness levels
- Helps plan a training programme to improve fitness/ performance
- Can be used to monitor progress in a fitness programme.

Your turn: Attempt these

1) State the tests used to measure muscular endurance

2) Give an advantage and a disadvantage of the grip dynamometer

Key Vocabulary

Aerobic, anaerobic, exercises, stations, terrain, intensity, resistance, fitness testing, training programme, progress, monitor

8.6 KS3 Core PE Knowledge Organiser: Methods of Training

Methods of Training

Method	Description	Fitness component	Sporting Example
Continuous	**No rest periods.** Exercising at a **constant** rate. E.g. Running, Cycling, Swimming.	**CV fitness**	Marathon Runners, Swimmers, Long-Distance Cyclists, Games Players
Fartlek	**It involves changes of speed.** It's **a type of continuous training** but involves changes in intensity over different intervals. E.g. changing speed or terrain.	**CV fitness**	Marathon Runners, Swimmers, Long-Distance Cyclists, Games Players
Interval	**This uses fixed patterns of exercise.** It has periods of high intensity exercise and either low intensity or rest. **Very structured.**	**CV fitness & speed**	Marathon Runners, Swimmers, Long-Distance Cyclists, Games Players, Sprinters
Resistance/ Weight	**Helps strength and muscular endurance.** You are using muscles **against resistance. Anaerobic** training.	**Strength & M. Endurance**	Weightlifters, Boxers, Swimmers, Cyclists, Sprinters
Circuit	**Stations** of **specific exercises** for a **set** amount of time before moving on to the next station. **Works both aerobic and anaerobic fitness.**	**M. endurance, strength &/or CV fitness**	A Variety of Athletes (Depending on Component of Fitness)
Plyometric	Exercises in which muscles exert **maximum force in short intervals** of time, with the goal of **increasing power.**	**Power**	Sprinters, High Jumpers, Long Jumpers

Misconceptions

- Agility run begins with you lying face down.
- Fitness tests are are used to measure components not improve them
- Fartlek training can involve a change of pace and/or terrain
- Circuit training can include skill specific stations and can take many different forms.
- Weight training can use both machine weights, dumb/kettle bells or a persons body weight.

Discuss - Required to explore the issue/situation/problem that is being assessed in the question context, articulating different or contrasting viewpoints, for example advantages, disadvantages

Your Turn: Try these questions

1) Identify a training method suitable for a boxer and explain how it would benefit their performance. 2) State 2 characteristics of circuit training.

Worked example – Ben is a cross country runner. Discuss the use of continuous and fartlek training to improve his performance.

Continuous training involves no rest periods and exercising at a constant rate. (1) Fartlek training involves changes of intensity (speed) or terrain. (1). Both methods of training improve CV fitness (1) which will help Ben run for longer at a higher intensity in his races. (1). Cross country involves running over different surfaces, therefore due to the change in terrain, fartlek training would be more specific for Ben as it replicates his event. (1) The change in intensity could also help him during sprint finishes at the end of the race.

Religious Studies: The Environment

What are the issues with the environment?

In recent years people have become very concerned about the impact humans are having on the environment and the way we are changing it. Climate change, global warming, deforestation – these are all key areas of concern. Linked to this is the way humans treat animals – vegetarianism, veganism, animal testing… where do we draw the line between use and abuse? Some say the environment is the biggest concern for the 21st century, with our life style causing untold harm for the future.

Christianity, Judaism and God's creation

Jews and Christians believe that God created the universe, but they may disagree about how. Many are happy to accept scientific theories but others follow the traditional accounts in Genesis. However creation happened they believe that humanity was given a special role within the process of creation, above animals and the rest of the environment. Some talk about humans being given dominion, others – probably the majority today – prefer the term 'stewardship' with its idea of looking after God's creation.

A Hindu perspective

Hinduism is an eastern religious tradition which says all living beings contain a soul, which suggests there is greater equality between humans and animals. Life is cyclic, with animals, plants and people all being valued as part of a creation where everything should be in harmony. Ahimsa is a key Hindu principle, and many Hindus are vegetarian as killing animals for meat causes suffering. Cows are seen as especially sacred and are protected by law in India – the Vedas forbid the killing of cows and the cow is seen as more useful to humans alive than dead. In India there are goshallas, or retirement homes for cows.

A Jain perspective

Jains also believe in ahimsa, but seem to take it further. For Jains almost everything is seen as living, with consciousness of some sort, and all life is sacred regardless of race, caste or species. They believe in the principle of interconnectedness, harm done to other beings is seen as harm done to oneself. A Jain monk may wear a mask to stop flies being accidentally swallowed, using a broom to remove bugs gently from their path. Humans are not separate from other life forms and we are certainly not the top of creation.

What do Humanists say?

Do religious beliefs actually hinder someone from looking after the environment? Humanists say we have only one life, it's up to us to make best use of it – does that lead us to take better care of our planet? H4BW = Humanists for a Better World works to protect the environment. Greta Thunberg is seen by some as a modern prophet for environmental issues. Is she religious? She doesn't mention it in her campaigns, so religion seems to be irrelevant. Should religious views, or lack of them, be irrelevant as we work together to save Planet Earth? What should we do to make a difference?

Key Word	Definition
Environment	The natural world, and habitats.
Creation	How did the world / universe come to exist?
Stewardship	Humans have responsibility to look after the world.
Dominion	Humans have power over the world, we rule it.
Global Warming	The increasing temperature of the world, caused by human activities etc.
Climate Change	Changes in temperature ie ice age.
Vegetarian	Not eating meat.
Vegan	Not eating meat or dairy products, or using animal products eg in clothing.
Animal testing	Using animals to test drugs or make up on.
Souls	The spiritual side of a human, may survive death or be a link with God? Hindus say all
Ahimsa	Non-violence / respect for life.
Interconnectedness	The idea that everything /being is linked together and is interdependent.

Key Quotes

Judaism / Christianity: "When I look at the sky, which you have made, at the moon and the stars which you set in their places – what is man, that you think of him; mere man, that you care for him? Yet you made him inferior only to yourself… you appointed him ruler over everything you have made." (Psalm 8)

Hinduism: "Without the killing of all living beings, meat cannot be made available, and since killing is contrary to the principles of ahimsa, one must give up eating meat." (from the Maunsmriti)

Jainism: "There is no quality of soul more subtle than non-violence and no virtue of spirit greater than reverence for life." (Mahavira)

Greta: "People are suffering. People are dying. Entire ecosystems are collapsing. We are in the beginning of a mass extinction…" (speech to UN Climate Action Summate)

Year 8 Disease and Evolution Knowledge Organiser

Pathogen- causes an immune response

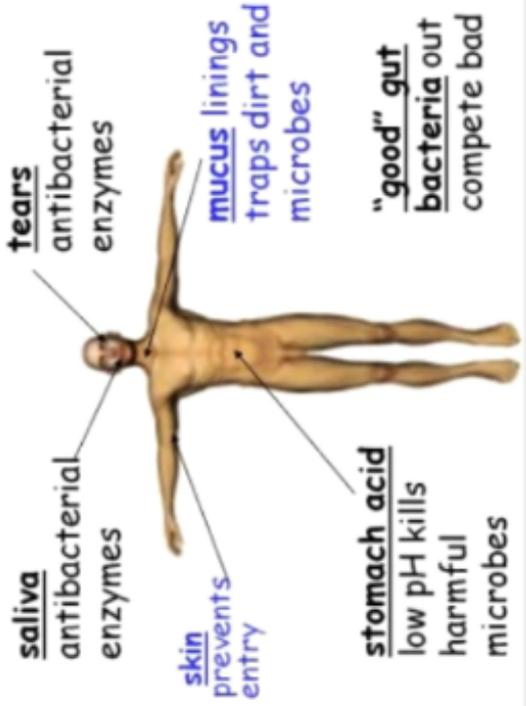| Pathogen	Example
Virus	Influenza, Measles, HIV
Bacteria	Salmonella, Gonorrhoea, TB
Fungus	Athlete's Foot, Ringworm, Thrush
Protist	Malaria

Methods of transmission

Direct contact (touch)

Indirect contact (door handles)

Droplet infection Airborne

Animals (vectors)

Food and Water consumption

Antibiotics- Drugs that kill BACTERIA
e.g. Penicillin

First Lines of Defence

tears antibacterial enzymes

mucus linings traps dirt and microbes

"good" gut bacteria out compete bad

saliva antibacterial enzymes

skin prevents entry

stomach acid low pH kills harmful microbes

Tier 2 Vocabulary

Variation
Continuous
Discontinuous
Population
Individual
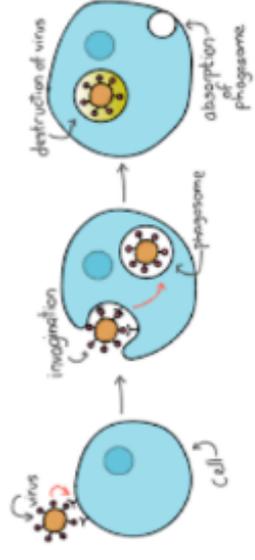Defences
Characteristic
Transmission
Method
Neutralise

Tier 3 Vocabulary

Evolution
Antigen
Antibody
Phagocytosis
Fossil
Evolution
Mutation
Pathogen

Bodies Defences – Non specific

Mucus, cilia, tears, eyelashes, sebum, skin, scabs, stomach acid.

Phagocytosis- Specific

White blood cells engulf pathogens and destroy them.

Phagocytosis

Antibody

Antigen

Antibody   Antigen

A different antibody will be made for this antigen

Pathogen

Antibodies- stop pathogens entering cells, bind to the antigen on pathogens

Anti toxins- neutralise the toxins

BOTH MADE BY WHITE BLOOD CELLS

Antigen – identifies a cell as belonging to the body or a pathogen.

Variation- The differences between individuals- caused by genetic mutation

Continuous- Height, length, weight

Discontinuous- Colour, blood group, tongue rolling

Genetic Mutation. DNA that is altered from the original. Can give organisms an advantage eg MRSA , bacteria resistant to antibiotics. Helping them survive and reproduce.

Mutated Gene

Lamarck- believed the more a characteristic was used the stronger it became in offspring. He even cut the tails of mice to test his theory!

Continuous Variation
- No distinct catagories
- Tends to be quantitative
- Controlled by a lot of genes
- Strongly influenced by the environment

Discontinuous Variation
- Distinct catagories
- Tends to be qualitative
- Controlled by a few genes
- Unaffected by the environment

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Natural Selection- Suggested by Charles Darwin
Natural variation within a population allows individuals to outcompete and survive (survival of the fittest). Over time a new species will form

Evolution- the process where one organism develops from an earlier organism

Fossils -
Preserved remains or dead organisms.

They allow us to see links from extinct organisms to those alive today.

Darwin – Evolution by Natural Selection

Darwin studied many animals and plants including the Finches of the Galapagos.
He developed the theory of Evolution by Natural selection.
People did not believe Darwin as the Fossil Record is incomplete and there was no evidence of DNA

Year 8 Knowledge Organiser
Principles of Chemistry

Tier 2 Vocabulary
Metal
Boiling
Evaporation
Condensation
Melting
Freezing
Temperature

Tier 3 Vocabulary
Particle
State of Matter
Sublimation
Molecule
Intermolecular
Giant Structure
Lattice
Endothermic
Exothermic
Energy profile diagram
Activation Energy
Kinetic energy
Element
Period
Group
Atoms
Atomic Number
Mass Number
Protons
Neutrons
Electrons
Nucleus
Shell

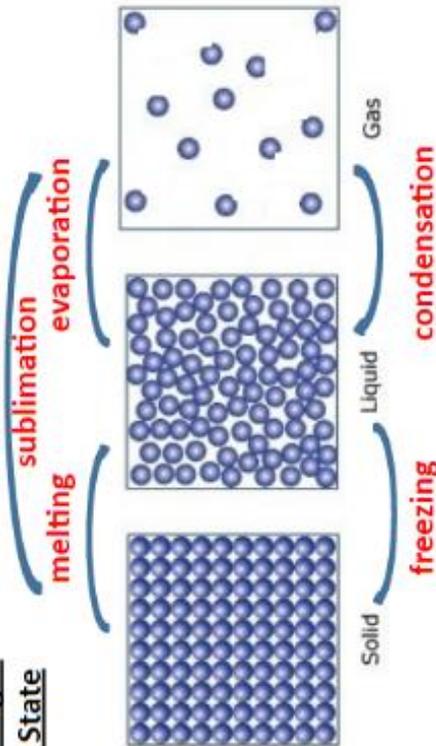## Particles of the same substance
Particles of water, for example, are exactly the same in ice, water and water vapour.

They **do not** change size or shape, only the arrangement of the particles changes.

Changes of State

sublimation
evaporation
melting
condensation
freezing

Solid   Liquid   Gas

Molecule
A small group of atoms (between 2 and 100) chemically bonded.

Melting point
Temperature at which a solid turns into a liquid. Ice melts at 0°C. **Melting** needs energy from surroundings to break intermolecular forces. The temperature of surroundings decreases

Differences Boiling and Evaporation
Boiling happens at a specific temperature
- Requires additional source of energy *e.g.* fire

Evaporation occurs at all temperatures
- Only at the exposed surface of the liquid
- Needs energy from surroundings to break intermolecular forces
- The temperature of surroundings decreases

Evaporation   Boiling

solid

rigid
fixed shape
fixed volume
cannot be squashed

liquid

not rigid
no fixed shape
fixed volume
cannot be squashed

gas

not rigid
no fixed shape
no fixed volume
can be squashed

Cooling/heating curves

gas
< boiling
gas<>liquid
condensing ->
liquid
< melting
liquid <> solid
freezing ->
solid
time
temperature

Boiling point
Temperature at which a liquid turns into gas. Water boils at 100°C

Temperature
A measure of the average kinetic energy of particles in an object
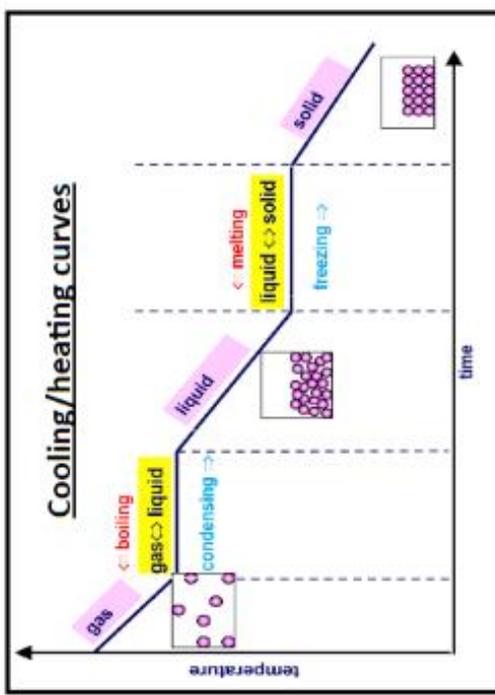
Molecular substances

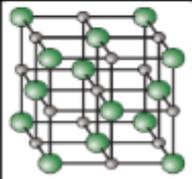- Molecular solid - molecules held in a repeating pattern
- Molecular liquid – molecules touching each other
- Molecular gas – molecules spread out

Giant structures

- Particles close together in fixed positions and regular pattern
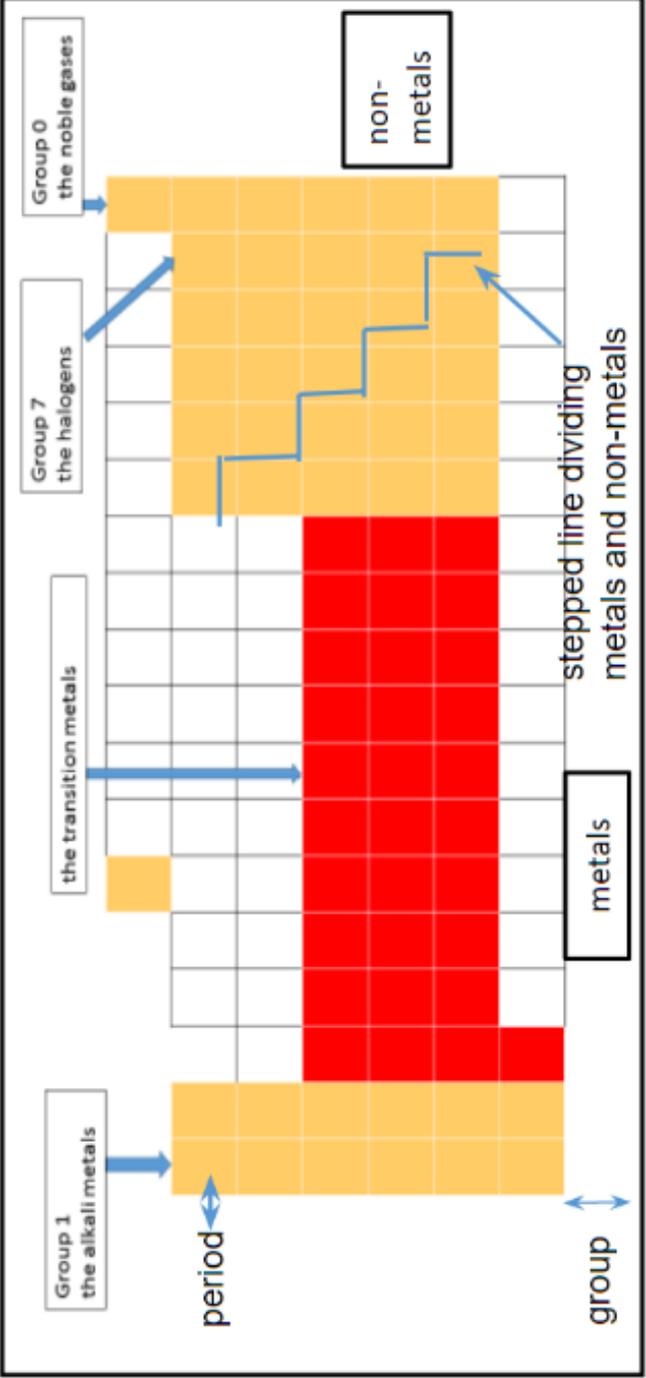- High melting and boiling point
- Hard & strong

MASS NUMBER
number of protons and number of neutrons

ATOMIC NUMBER
number of protons
(= number electrons)

56

Fe

iron

26

Number of electrons in the outer shell of an atom is the Group Number *e.g:*
sodium has an electronic structure 2.8.1 it has 1 electron in its outer electron shell, therefore it is in group 1.
Number of occupied shells is the Period Number *e.g.* for sodium 2.8.1 it has three occupied shells, therefore in period 3.

Periodic table diagram:

Group 1 the alkali metals

Group 7 the halogens

Group 0 the noble gases

the transition metals

non-metals

stepped line dividing metals and non-metals

metals

period

group

Energy profile diagram shows energy in reactants and products, the difference in energy between them AND it includes the activation energy. **Activation energy**: The minimum amount of energy that colliding particles must have for them to react

Endothermic energy profile

Energy | Activation energy | Products | Overall energy change | Reactants

Exothermic energy profile

Energy | Activation energy | Overall change in energy (ΔH) | Products | Reactants

---

particle	where found in the atom	relative mass	charge
proton	nucleus	1	+1
neutron	nucleus	1	0
electron	shells	0	-1

How many electrons per shell?
Electrons will fill the shells nearest the nucleus first.

1st shell holds a maximum of 2 electrons

2nd shell holds a maximum of 8 electrons

3rd shell holds a maximum of 8 electrons

This electronic structure is written as 2.8.8

The **nuclear model** of the atom is states that atom consist of **positively charged nucleus containing protons and neutrons** surrounded by **shells** containing negatively charged **electrons.**

Spanish   Y8 Summer term Knowledge Organiser   Unit 5: Mi región – My area

Key spellings

Learn these spellings, they will be really useful for this unit and you will be tested on them.

1. pequeño/a	small
2. se puede	you can
3. a la izquierda	on the left
4. tiene	it has
5. está	it is (situated)

Key vocabulary and questions

¿Qué casa prefieres?	Which house do you prefer?
Prefiero…porque…	I prefer…because…
Esta casa es…	This house is…
Este piso es…	This flat is…
amplio/a	spacious
antiguo/a	old/old-fashioned
bonito/a	pretty
cómodo/a	comfortable
feo/a	ugly
moderno/a	modern
maravilloso/a	marvellous
pequeño/a	small
enorme	enormous
grande	big
más…que…	more…than
menos…que…	less…than
las otras/los otros	the others
La casa/El piso está…	The house/flat is (situated)…
cerca de la playa	near the beach
en el centro	in the centre
en el campo	in the countryside
en la montaña	in the mountains

There are two verbs that mean 'To be' in Spanish: SER and ESTAR. Do you know when to use each one?

The house

La casa	The house	
Tiene…	(It) has…	
No tiene…	(It) doesn't have…	
una cocina	a kitchen	
un comedor	a dining room	
un salón	a living room	
un jardín	a garden	
un cuarto de baño	a bathroom	
tres dormitorios	3 bedrooms	
un jacuzzi	a jacuzzi	
una piscina	a pool	
una chimenea	a fireplace	
una terraza	a terrace/balcony	
una sala de juegos	a games room	
un despacho	an office	

Use some of the adjectives from the first box to describe these rooms.

¿Qué se puede hacer en tu región? — What can you do in your area?

Se puede…	You can…
hacer senderismo	go hiking
ir a la bolera	go to the bowling alley
ir al cine	go to the cinema
ir de compras	go shopping
ir de paseo en bici	go for a bike ride
ir a la playa	go to the beach
ir al restaurante	go to the restaurant
jugar al golf/tenis/voleibol etc.	play golf/tennis/volleyball etc.
ver la catedral	see the cathedral
ver un castillo	see a castle
Se pueden…	You can… (plural)
hacer deportes náuticas	do water sports
hacer artes marciales	do martial arts

Think of other infinitive verbs to use here to say what you can do (comer helados, bailar en la discoteca…).

¿Dónde está… — Where is…

¿Dónde está…	Where is…
la catedral?	the cathedral?
la estación de trenes?	the train station?
el parque de atracciones?	the theme park?
el minigolf?	the minigolf?
la pista de karting?	the go-kart track
el parque acuático?	the water park?
el zoo?	the zoo?
Sigue todo recto.	Go straight on.
Dobla a la derecha.	Turn right.
Dobla a la izquierda.	Turn left.
Toma la primera calle a la derecha	Take the first road on the right.
Toma la segunda calle a la izquierda	Take the second road on the left.
Cruza la plaza	Cross the square.
Está a la derecha/izquierda	It's on the right/left

What other places in the town can you remember from Y7?

Key grammar - Comparatives

Comparatives compare two or more things:

(bigger, more modern, smaller, less ugly).

Use comparatives to talk about your preferences:

Esta casa es más bonita que las otras
This house is **prettier/more** pretty **than** the others.

Este piso es menos feo que los otros
This flat is **less** ugly **than** the others.

Remember to make sure your adjective endings agree for masc/fem

In English, we sometimes ad **-er** to the adjective to make it a comparative. We can't do this in Spanish and must use **more + adjective.**

Spanish Y8 Summer term Knowledge Organiser Unit 6: El campamento de verano – Summer camp

Key spellings

Learn these spellings, they will be really useful for this unit and you will be tested on them.

1. ayer	yesterday
2. mañana	tomorrow
3. visito	I visit
4. visité	I visited
5. voy a visitar	I'm going to visit

Remember to use time phrases to show clearly which tense you want to use.

Time phrases

ayer	yesterday
el fin de semana pasado	last weekend
el verano pasado	last summer
el año pasado	last year
hace dos años	two years ago
hoy	today
normalmente	normally
los fines de semana	at the weekend
en verano	in summer
mañana	tomorrow
el fin de semana que viene	next weekend
el año que viene	next year

¿Qué vas a hacer? / What are you going to do?

Voy a.../Vamos a...	I'm going to/We're going to...
hacer senderismo/escalada	go hiking/ rock climbing
montar a caballo	go horse riding
dormir en tiendas	sleep in tents
ir de pesca	go fishing
hacer piragüismo	go canoeing
hacer surf/windsurf/vela	go surfing/windsurfing/sailing
disfrutar de actividades en la playa	enjoy activities on the beach
hacer cursos en inglés	do a course in English
ir de excursión	go on a trip
cantar y tocar instrumentos	sing and play instruments
visitar museos	visit museums
pintar y hacer teatro	Paint and do drama
Va a ser...	It's going to be...
Me gustaría...+infinitive	I would like to...
Me encantaría...+infinitive	I would love to...

¿Qué hiciste? / What did you do?

El año pasado fui a un campamento de verano	Last year I went to a summer camp
un campamento artístico/lingüístico/científico	an arts/languages/science camp
un campamento de naturaleza	a nature camp
el primer día...	on the first day...
tuve miedo	I was scared
conocí a unos chicos simpáticos	I met some nice kids
hicimos cosas estupendas	we did fantastic things
jugué al fútbol y al voleibol	I played football and volleyball
hice vela y piragüismo	I went sailing and canoeing
dormimos en tiendas	we slept in tents
un día...	one day...
fuimos de pesca	we went fishing
canté y toqué instrumentos	I sang and played instruments
el último día...	on the last day...
fuimos de excursión	we went on a trip
visitamos museos	we visited museums
Fue...	It was...
¡Me encantó!	I loved it!...

El campamento de verano – Display work

Imagine you went to a Spanish summer camp last year. Prepare a piece of writing using 3 tenses, opinions and reasons. Use the prompts below to help structure your work:

o Give your name and age and say what you like.
(Me llamo... y tengo... años. Me gusta... y me encanta...)
o Say that last year you went to summer camp. (El año pasado fui a un campamento de verano en...)
o Give details about what activities you did there.
(En el campamento hice/jugué/fui/canté/monté... y también... Un día hicimos/fuimos...)
o Say what it was like. (Fue...)
o Say what you are going to do next summer and give a reason.
(El verano que viene voy a... porque me gusta... y me gustaría...)
o Say what it's going to be like. (Va a ser...)

Key grammar – Using 3 tenses in your work

Try to include past, present and future tense in every piece of writing you do. Here is a reminder of how to form the 'I' form of each tense and some key verbs that don't follow the usual pattern:

	Infinitive	Preterite (past)	Present	Near future
Regular verbs	visitar	visité	visito	voy a visitar
	comer	comí	como	voy a comer
	escribir	escribí	escribo	voy a escribir
Stem-changing verbs	jugar	jugué	juego	voy a jugar
Irregular verbs	hacer	hice	hago	voy a hacer
	ir	fui	voy	voy a ir
	tener	tuve	tengo	voy a tener
	ver	vi	veo	voy a ver

Year 8 Design and Technology Knowledge Organiser

Classification and Properties of Materials:

Classification on Woods

Hardwood	Oak, beech, mahogany	•Deciduous trees • Have broad leaves • Slow growing so expensive • Grow nuts or seeds
Softwood	Pine, cedar and spruce	• Coniferous trees • Have needles • Fast growing so cheaper • Grow berries or fruit
Manufactured boards	MDF, plywood, chip board	•Made in a factory • Binds wood with a resin • Comes in large sheets not planks

Classification on Metal

Ferrous	Wrought iron, pig iron, mild steel, stainless steels	•Contain iron • Magnetic (most) • Rust
Non-Ferrous	Copper, tin, silver, gold, aluminium, bronze, nickel	•Do NOT contain iron • Are NOT magnetic • Do NOT rust
Alloys	Solder, Pewter, Brass	•Mixture of more than one element • Combining 2 metal improves properties

Classification on Plastic

Thermosetting	Epoxy resin, polyester resin, urea formaldehyde	•Can only be heated and shaped once into a product. • Not recyclable
Thermoplastic	Acrylic, PVC, polythene, nylon, polypropylene	-Can be heated and shaped repeatedly into different products. - Can be recycled

Specific Language and Terms

| Durable	To be long lasting	Thermal	To be able to conduct or insulate head
Malleable	To be bent and shaped	Electrical	To be able to conduct or insulate electricity
Strength	To withstand forces and breaking	Ductile	To be drawn into a wire (stretched)
Toughness	To not break or snap	Density	A measure of mass per unit volume
Hardness	To withstand scratching or denting	Absorbency	The ability to take in moisture

Year 8 Design and Technology Knowledge Organiser

Health and safety and Hand tools:

Specific Language and Terms

PPE	Personal protective equipment.
Hazard	A danger or a risk
BSI	British Standards Institute
Kitemark	Assures consumes that the product is safe and has been tested by the BSI
CE mark	Assures consumers that the product meets European safety standards

PPE Equipment

Apron	To protect your clothing from soiling or from being caught in machinery/tools.	
Goggles	Protect your eyes from dust particles or any other flying debris from machining.	
Ear defenders	To protect your ears when using loud machinery.	
Gauntlets	Protect your hands- particularly from heat when brazing or carrying out heat treatments.	
Dust mask	To protect your breathing when working with dusty or hazardous materials.	

Tools and equipment

Try Square	Drawing a line at 90 degrees OR checking a corner is square (90 degrees)	
Tennon Saw	Sawing straight lines in wood or plastic (not metal	
Coping saw	Sawing curve lines in wood or plastic (not metal)	
Flat File	Shaping or smoothing a piece of wood, metal or plastic.	
Vice	Hold work still and secure when drilling.	
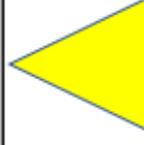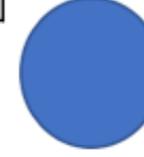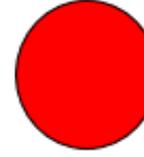
Red: Prohibition Do Not - Stop
Blue: Mandatory Must obey
Yellow; Warning Risk of danger
Green: Safety Means go

Walk safely and calmly around the classroom/ workshop.	Keep your work area and floor area clear – keep your belongings hung up
Follow the teacher's instructions for using equipment carefully.	Make sure that you are wearing the correct PPE equipment for tasks.
Return all equipment to the correct areas of the classroom/ workshop.	Report all spillages & clean up properly after yourself.

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Year 8 Design and Technology Knowledge Organiser
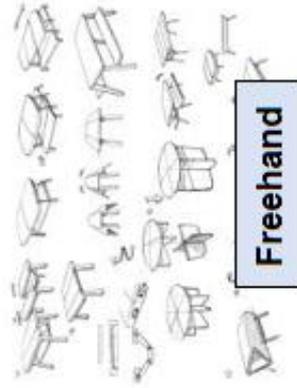
Machinery and CAD CAM:

Machinery

Machinery		
Pillar Drill	A free standing machine that uses a motor to rotate a drill bit. This drill bit can then be used to cut holes in materials.	
Sander	Is used for shaping and finishing wood. It consists of an electric motor that turns a continuous loop of sandpaper.	
Laser Cutter	A CAM machine that engraves and cuts through material using a high powered optical laser	
Vacuum former	A machine used to form sheet plastic into permanent objects using a mould.	
Hegner saw	A small electrical saw with a thin blade used to cut a variety if thin sheet materials	
Vinyl Cutter	A CAM machine that has a sharp blade to cut out designs on tin self-adhesive plastic	

CAD- Computer Aided Design

Advantages	Disadvantages
Designs can be created, saved and edited easily, saving time	CAD software is complex to learn
Designs or part of designs can be easily copied or repeated	Software can be very expensive
Designs can be worked on by remote teams simultaneously	Compatibility issues with software
CAD is very accurate	Work can be lost if not backed up
Designs can be rendered to look-realistic to gather public opinion in a range of finishes.	

CAM – Computer Aided Manufacture

Advantages	Disadvantages
Quick – speed of production can be increased	Training is required to operate CAM
Consistency and accuracy – All parts manufactured are all the same	High initial outlay cost for machines
Less mistakes- there is no human error unless pre programmed	Loss of jobs for people
Cost saving – workforce can be reduced	Production stoppage – if the machines break down, the production would stop

Specific Language and Terms

Machinery	Mechanical or electrical device designed to be used to perform a function.
CAD	Computer Aided Design
CAM	Computer Aided Manufacture
Software	The programs used by a computer

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2D DESIGN v2

SolidWorks

Roland CutStudio

SketchUp

CAD software programmes

Year 8 Design and Technology Knowledge Organiser

Oblique Projection

Opposite is a cube that has been drawn in Oblique projection.

To draw it in oblique projection follow the three main steps below:

45 degrees

1. Draw the front or side view of the object.

2. Project 45 degrees lines from each corner
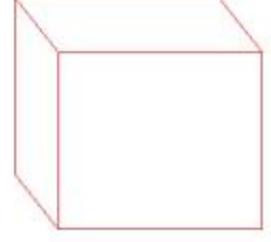
3. Draw the back two lines of the cube in position. Go round the outline of the cube with a fine black pen or dark, sharp pencil.

Creating ideas and Oblique drawing:

Biomimicry

Annotation

Jack Straws

Geometric shapes
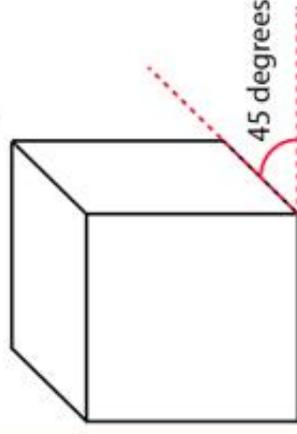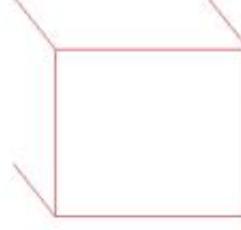
Freehand

Scruffiti

Specific Language and Terms

Oblique drawing	A projective drawing on an object in 3D where the front face is drawn flat and all other lines are projected at 45 degrees
Freehand sketching	Quick sketching without using a ruler. This is to be used to get your first thoughts for ideas down on paper
Creative ideas	Thinking outside the box. Different ways to get creative are to use techniques such as Jack straws, Geometric shapes, Scruffiti and Biomimicry.
Annotation	The notes you write around your ideas explaining what they show and how it could be made.

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Art/Design Cultures and ACCESSFM:

Access FM

We use ACCESS FM to help write a **specification** and to help **analyse** and describe an already **existing product**

A is for	**Aesthetics**
C is for	**Cost**
C is for	**Customer**
E is for	**Environment**
S is for	**Size**
S is for	**Safety**
F is for	**Function**
M is for	**Material**

Mexican

Aboriginal

Ancient Chinese

British

African

Specific Language and Terms

Culture	Culture is a pattern of behaviour shared by a society, or group of people. Many different things make up a society's culture. These things include food, language, clothing, tools, music, arts, customs, beliefs, and religion.
Product Analysis	A detailed examination of a product
Specification	Stating precise requirements of a design

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Year 8 Design and Technology Knowledge Organiser

Mechanical systems and Movement and forces:

Specific Language and Terms

Mechanical system	A mechanical system is a set of physical components that convert an input motion and force into a desired output motion and force. Mechanical systems have at least three elements: input, process and output.
Mechanism	Is a device that transforms input forces and movement into a desired set of output forces and movement.
Machine	A system of mechanisms working together
Motion	A type of movement
Force	Is a push or pull in a certain direction that causes a change in speed, direction or shape.

Mechanisms

Mechanism	Definition	Example
Gears	Gears are toothed wheels (cogs) that lock together and turn one another. When one gear is turned the other turns as well.	
Pulleys	Pulleys are like gears, but the wheels do not lock together. The wheels are instead joined together by a drive belt. Pulleys can be used to affect the speed, direction or force of a movement.	
Levers	a rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other	
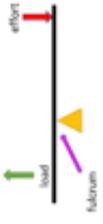
Types of Movement

Motion	Definition	Example
Linear	Moves in one direction	Bike, car, train
Oscillating	Swings back and forth	Pendulum, swing
Reciprocal	Repetitive back and forth linear motion	Sewing machine needle
Rotating	Moves in a circular motion	Car wheels, pedals

Forces

Force	Definition	Example
Compression	A pushing or squashing force	Mattress springs
Tension	A pulling or stretching force	Tug of war rope
Torsion	A twisting force	Turning a screw
Shear	A cutting force caused by two forces in opposite directions very close together	Scissors
Bending	When two forces act in opposite directions	Beam bridge

Notes Page

Notes Page