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My Knowledge Organiser

What is a Knowledge Organiser?

A Knowledge Organiser is a place to keep some key information for the topics we are learning about. This may include an important formula, vocabulary, dates or explanations. It is not a complete list of everything we are studying but it *is* a place where we can find the basic information. It is likely that when you first see the Knowledge Organiser you will not understand much of what is included. Gradually, as you work on the content in lessons and at home, it will become more familiar and, over time, you should find that, not only do you understand everything on it, but that you can *remember* everything that is on it and, even better, know how this information relates to what you are studying.

How do we use our Knowledge Organisers?

We can use our Knowledge Organisers in many ways. The main aim is that we are able to memorise, understand and eventually *apply* all of the information in the Knowledge Organisers. We will do this by:

•using them to refer to in class to support our learning.

•working on them in lessons and coming up with ways to memorise the information in them.

A BENE

•working on them at home with parents or carers to reinforce our learning and so that others may be involved in what we are learning too.

•using them as learning homeworks that we will have quizzes on in class.

•using them as homework or to help with homework.

What do I need to know?

This knowledge organiser has been given to you. It is an essential part of school equipment and you must bring it to school everyday. You must have your knowledge organiser with you for each lesson. Fill in your timetable in pencil and use it to plan your equipment each day.

Test yourself on the knowledge in this booklet regularly; in class, at home, on the bus, or with help from friends and family.

There are some activities for you to do in this knowledge organiser. Don't write in the booklet – use paper so that you can test yourself regularly and see the progress you are making. Sometimes you will use these booklets in cover lessons and for homework.

If you lose your Knowledge Organiser make every effort to find it. They are valuable, look after them. If you can't find it you will be charged for a new one.

• Fill in your timetable very carefully in pencil. Include the teacher's name, the subject and the classroom. Try to learn your timetable off by heart.

	Week A								
	For	m	Lesson 1	Lesson 2		Lesson 3		Lesson 4	Lesson 5
	8.2	5-8.45	8.45-9.45	9.45-10.45		11.00-12.00		12.45-1.45	1.45-2.45
Monday									
Tuesday	-	hdma			- k		time		
Wednesday		. Asse			Brea		nch.		
		ne or					Ľ		
Thursday		m tir							
Friday	-	For							
									2

• Fill in your timetable very carefully in pencil. Include the teacher's name, the subject and the classroom. Try to learn your timetable off by heart.

	Week B								
	For	m	Lesson 1	Lesson 2		Lesson 3		Lesson 4	Lesson 5
	8.2	5-8.45	8.45-9.45	9.45-10.45		11.00-12.00		12.45-1.45	1.45-2.45
Monday		Z							
Tuesday		ssemb			Break		ch time		
Wednesday		ne or A					Lun		
Thursday		orm tir							
Friday		L							

Punctuality and Attendance

It is vital that pupils attend school every day and on time. There is a proven link between attendance, attainment and progress. At St Joseph's we expect all pupils to aspire to 100% attendance and for pupils to be on the school site *before* 8.25am.

If a pupil is going to be absent we ask that a phone call is made to school on the first morning of absence *before* 8.25am. If contact is not made the school will contact parents / carers.

School attendance is monitored daily and a letter will be sent to parents immediately when attendance becomes a cause for concern. Further action may be taken and this may include; further letters home, a school attendance meeting, a fixed penalty notice (fine).

It is important to be on time for school and lessons. Lateness can affect *everybody's* progress. For this reason, pupils arriving late will be given a same day detention. Where lateness is not improving school will apply further sanctions and seek parental support to improve punctuality.

Holidays or any other events during term-time are strongly discouraged as this can have a detrimental effect on your child's progress, as well as that of others in their class. From September 2024 in all cases schools will not authorise holidays taken in in term time, and this may result in sanctions from Education Welfare Services. We appreciate your support in this matter.

My attendance term 1	%
My attendance term 2	%
My attendance term 3	%

Catholic Life and Mission at St Joseph's



With Christ at the centre, our school seeks to exemplify faith in action, working for justice and compassion, manifest in acts of charity and kindness. We work for those in need, and instil an ethos of care, kindness, and respect. As an inclusive family, we seek to help and care for the most vulnerable and marginalised. Our community is built upon values, which are inspired by the Gospel and the Church. Our values are visible in the environment, relationships, interactions, and our day-to-day life.



Dear young people, make the most of these years of your youth. Don't observe life from a balcony. Don't confuse happiness with an armchair, or live your life behind a screen....Don't be parked cars, but dream freely and make good decisions. Take risks, even if it means making mistakes..... Live! Give yourselves over to the best of life! Open the door of the cage, go out and flv! Pope Francis, Christus Vivit

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Christ has no body but yours, No hands, no feet on earth but yours, Yours are the eyes with which he looks Compassion on this world, Yours are the feet with which he walks to do good, Yours are the hands, with which he blesses all the world. Yours are the hands, yours are the feet, Yours are the eyes, you are his body. Christ has no body now but yours, No hands, no feet on earth but yours, Yours are the eyes with which he looks compassion on this world. Christ has no body now on earth but yours. Teresa of Avila

All adults at St Joseph's are here to keep you

If you have any worries or concerns please speak to any adult

You WILL be listened to!

They may need to discuss these worries with Mr Singleton, Mrs Anderton, Mr Sylvester or Miss Tebay in order that your issue is dealt with. The websites below may also be helpful out of school



St Joseph's Curriculum Structure



Character Curriculum: All about ∫ Link4Life

Confidence	Curiosity	Commitment	Compassion	Consideration	Collaboration
Genesis 1:27 "God created man in his own image"	Philippians 14:9 "Whatever you have learned or heard or seen me, put it into practice"	Proverbs 16:3 "Commit to the LORD whatever you do"	John 13:34 "Love one another: just as I have loved you"	Galatians 5:13 "Serve one another humbly in love"	Corinthians 12:12 "We are one body in Christ, together",



And	re	Derai	in

- Vincent Van Gogh
- Paul Cezanne Alice Sheridan









LANDSCAPES WORD BANK

Horizon Line – Where the land and the sky meet.

Perspective - a 2D surface showing an image that appears as 3D. It gives the correct impression of their height, width, depth, and position in relation to each other.

Arial Perspective – Colour and detail is less the further away an object is.

Background – Objects that are furthest away from the viewer.

Middleground - Objects that are in the between the foreground and background.

Foreground – Objects that are closest to the viewer.

The Formal Element	Definition
Line	The path left by a moving point, e.g. a pencil or a brush dipped in paint, that can take many forms. e.g. horizontal, diagonal or curved.
Tone	The lightness or darkness of something. This could be shade or how dark or light a colour appears
Texture	The surface quality of something, the way something feels or looks like it feels. There are two types: Actual and Visual.
Shape	An area enclosed by a line. It could be just an outline, or it could be shaded in.
Pattern	A design that is created by repeated lines/ shapes/ tones or colours. It can be manmade, like a design on a fabric or natural, such as markings on animal fur.
Colour	There are 2 types including Primary and Secondary. By mixing any two primary together we get a secondary.

How would you describe a horizon line?	
How would you describe perspective?	
What is the background in a landscape?	
What is the middleground in a landscape?	
What is the foreground in a landscape?	

Colour Theory	
What are the 3 Primary Colours?	
What are the 3 Secondary Colours?	
What is a Tertiary Colour?	



The formal element	Definition
Line	The path left by a moving point, e.g. a pencil or a brush dipped in paint, that can take many forms. e.g. horizontal, diagonal or curved.
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2H H	F HB B 28 38 48 58 68 78 88











Paul Gauguin

Leonardo Da Vinci

Frida Kahlo

Johannes Vermeer

Luke Dixon

Mark Powell

Kirsten Britt

PORTRAITS WORD BANK

Media- Materials and Tools used to create a piece of Art work.

Mark Making- Describes the different lines, patterns and textures.

Composition- How something is arranged

Blending- To create a gradual transition.

Continuous Line/Contour Drawing- To create one continuous line of drawing.

Observational Drawing- To look at an object/ photograph and draw exactly what you see.

How would you describe a media?

How would you describe a mark making?

What is a **Composition** in art?

Practice drawing the eyes, nose and mouth in the boxes below









Business and ICT – B-ICT

iDEA Badges (homework)

The iDEA Awards are the digital equivalent to the Duke of Edinburgh Award.

You can achieve the Bronze, Silver and Gold Award and these can be included on CV's in the future to show that you have a high level of digital literacy and help you to stand out from peers. We will work to complete the Bronze Award this year (although some students work faster and achieve Silver also).

You have signed up to this using your school email (see format below) and a password that you have chosen. If you forget your password click on the forgot password link to send a reset email to your school email account.

The below iDEA award badges need to be completed in the first half of the year. Your class teacher will tell you which ones to complete each half term.

School email format: last 2 digits of the year that you have started, surname, first <u>initial@st-josephs.bolton.sch.uk</u> (please not there are no spaces) Example: <u>23BloggsJ@st-josephs.bolton.sch.uk</u>

Citizen Section	Worker Section	Maker Section	Entrepreneur	Gamer Section
Badge Done?	Badge Done?	Badge Done?	Badge Done?	Badge Done?
Foundation	Foundation	Foundation	Foundation	Foundation
Activation	Activation	Activation	Activation	
含含含 CITIZEN	(合合合) WORKER	<u>食食食</u> MANEE		合合 GAMER
	B.	SILVER	6010	



Year 8 A1—E-Safety



E-safety websites:

www.thinkuknow.co.uk https://www.bbc.co.uk/bitesize/ www.thinkuknow.co.uk http://www.safetynetkids.org.uk/ https://www.childline.org.uk/ https://www.bbc.co.uk/bitesize/

Copyright, Creative Commons licenses and Plagiarism



Copyright applies automatically to anything uploaded to the internet. It remains for the life of the creator plus an additional 70 years.

Copyright covers images, text, music, programs, song lyrics, scripts artwork etc. If you want to use anything that you find online, you must seek written permission from the creator.

Creative commons licenses can be applied by creators if they are happy for the work to be used by other in certain situations.

Creative commons licenses are:

Attribution—must give credit to the owner No Derivatives—no changes can be made Non-commercial—cannot profit from it.



Copying someone else's work and passing this off as your own is known as plagiarism.

Sexting

Sexting is when you send a sexual message, photo or video to someone else. It could be a picture of you, but sometimes people send pictures and videos of other people.

Digital Footprint

A digital footprint is the trail of information you leave behind when you use the internet.

Your digital footprint is made by things that are visible such as social media posts from you and other people. This includes photos, status updates, check-ins at locations, online groups and sites that you've liked or joined, and posts from other people that you've shared.



Billboard Test



·Worms

"Online Sexual Harassment is defined as unwanted sexual conduct on any digital platform. It can include a wide range of behaviours using digital content such as images, videos, posts, messages, and pages."

Cookies

A cookie is a small text file created when you access a website. These can be used to store your personal preferences or log in details so you don't need to re-enter these details.

Phishing, spam and viruses

Phishing is the act of stealing personal information by sending emails that appear to be from legitimate websites, ie, your bank, Paypal, Facebook, Twitter etc. Phishing websites often have spelling mistakes and are not addressed to you personally. Emails from legitimate sources usually will not includes links to log on to accounts.

Spam is electronic junk mail. It is sent to large amounts of people and is not personalized. Purposes include advertising , phishing, Spreading malware.

A virus is malicious software that, after running, copies itself into other programs and files on the



Key Terms

Cyberbullying—using any form of technology to bully.

Flaming — posting or sending offensive messages online.

Impersonating pretend to be another person (to appear to be

that person when online).

Masquerading-

pretend to be someone you are not (for example posting anonymously or with a fake account).

Browser—software to access the internet i.e. Chrome, Edge

Bias—only giving one side of the story.

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Year 8 A1—E-Safety



E-safety websites: www.thinkuknow.co.uk https://www.bbc.co.uk/bitesize/ www.thinkuknow.co.uk http://www.safetynetkids.org.uk/ https://www.childline.org.uk/ https://www.bbc.co.uk/bitesize/

Copyright, Creative Commons licenses and Plagiarism What do we mean by copyright?	In your own words explain what sexual harassment is	Key Terms Cyberbullying—
What is covered under copyright?	Cookies Why would a website use cookies?	Flaming—
What are the creative commons licences?	Phishing, spam and viruses Explain the term phishing	Impersonating— Masquerading—
Sexting Is it illegal to send nudes to someone who is under 18 (even if both par- ties are the same age)?	Give an example of a virus and how it can affect a PC	Browser—
Digital Footprint What do we mean when we say digital footprint and how can this affect your future?		 Bias—





Year 8 A2 - Graphic Design

Helpful websites

https://kids.kiddle.co/Copyright

https://www.youtube.com/watch? v=8gJ5hkhYLs8

https://www.photopea.com/

https://sites.google.com/view/

Key Vocabulary Editor - software which can be used to edit graphics. Graphic - visual art Magic Wand common tool from editing software. Used to select parts of a graphic and remove. Transformation - The Transform tool allows for multiple resizing, scaling, warping and perspective changes Pixels/Pixelated term used in computer

graphics to

pixels.

describe blurry sections or fuzziness in an image due to visibility of single-coloured square display elements or individual

Photopea/	Photoshop Too	ols	
	-(6)		
Marquee Select Tools	C	Move	
Lasso Select Tools	6.2	Magic Wand	
Crop	样 岁.	Slice, Slice Select	
Healing Brush, Patch	1.1.	Brush, Pencil	
Clone & Pattern Stamp	B. 3.	History Brush, Art History Brush	
Eraser	a. 🖪	Paint Bucket, Gradient	
Blur, Sharpen, Smudge	۵. ۹.	Dodge, Burn, Sponge	
Path Selection	¥. T.	Text	
Pen & Anchor Tools	۵. 💷.	Shape Tools	
Notes	1. 9.	Color Picker, Sampler, Measure	
Hand Tool	3 Q	Zoom	
Foreground / Background Color			
		Edit Mode (Standard / Quick Mask)	
Screen Mode (Standard / Full Screen)		1	
	1220	Jump to Image Ready	

	B-ICT	Know	ledge	Organi	se
A					

Year 8 A2 - Graphic Design

Copyright, Creative Commons licenses and Plagiarism

What are the consequences of not following copyright laws?

Are you an owner of copyright?

Explain the creative commons licence, attribution and what this means?

Fair Use/Fair Dealing Policy

Explain when fair use policy applies?

Magazine Cover Features

Label some of the features of the magazine cover below and explain the design choices



https://www.photopea.com/ https://sites.google.com/view/ Key Vocabulary Masthead -Strapline -Copyright -**Creative Commons** Fair Dealing -

Helpful websites

v=8gJ5hkhYLs8

https://kids.kiddle.co/Copyright https://www.youtube.com/watch?

Operator	Meaning
==	Equal to
i=	Not equal to
>	Greater than
<	Less than
#>	Equal or more than
<=	Equal or less than

Small Basic Year 8 Sp1 - Small Basic

Key Term	Description
Code	The instructions for the computer telling it how to function
Input	Where data is entered into a computer by a user/human
Output	Where data is displayed by the computer. Examples include: text, images, sound, or video displayed on a monitor or through speakers.
Syntax	The rules for how the code is written.
Syntax error	Where the code doesn't work because of a mistake in the code or because of how it is written.
Logic error	A logic error is where the code works but it doesn't give the result that you wanted
Variable	A place to store a single piece of data
Selection	Where code is only run if something is True as if the computer is making a decision
Intellisense	Where the program tries to guess the code you are writing. Similar to autocorrect
Loop	Where code repeats. It can repeat forever, a set number of times or until a condition is met

Key Term	Description	Key Term	Description
Editor	The area in Small basic where you type the code	IF	Allows you to
Graphics window	The window where drawings are made by the computer based on your instructions/code.		make something happen IF a cer-
Text window	The window where text appears when running your program. Programs can print text to this window or the user can write text into it		tain parameter is met i.e.
For Loop	Allows you to run a piece of code a set number of times.		IF colour = "red" Then
	The following example will print out numbers from 1 to 10 For i = 1 To 10		TextWin- dow,WriteLine ("That's my fa- vourite too")
	EndFor	Math.Ran domNum	Randomly gener- ates a number up
While Loop	Allows you to repeat code forever or until a condition has been met	ber()	to the number entered in the brackets.
	The following code will print a set of random numbers until one that is greater than 100 is encountered.	Helpful we	bsites
	While i < 100 i = Math.GetRandomNumber(150) TextWindow.WriteLine(i) EndWhile	https://sm publicweb site.azurev	all basic- vebsites.net/

Microsoft Small B	B-ICT Kno	wledge Org Sp1 - Si	ganiser mall Basic	== != > < => <=	Equal to Not equal to Greater than Less than Equal or more that Equal or less than
Key Terms Code Input Output Syntax Syntax error	Description	Key Terms Editor Graphics win- dow For Loop	Description	IF M .R do	ry Description rmain an- am
Logic error Variable Selection Intellisense		While Loop		H h si	elpful websites ttps://smallbasic- ublicweb- te.azurewebsites.net/



WISDOM HAS BUILT HERSELF A HOUSE. Design and Technology – Digital Graphics

Department of Design and

ISTITA TIMORE	Technology
Keywords	Definitions
Graphics	Graphic design is using Compter software to create images. A graphic designer creates the images that can be published, printed, or electronic media, such as brochures and advertising.
Layer	In Photoshop each layer is one image stacked on top of another to form a complete image.
Brand	A brand is a name, term, design, symbol or any other feature that distinguishes one company to another.
Layout	Layout is the arrangement of fixed items such as image, text and style on a page.
Logo	Logos are images, texts, shapes, or a combination of the three that depict the name and purpose of a business
Client	The client is your customer. The person who will be using what you have created.
Cut	A designer can cut out or crop unnecessary parts of an image to improve framing, highlight a specific subject.
Copy and paste	Copy and paste are commands in a computer as a method of transferring data from one location to another.
Typeface	Typeface means the font. There are various styles on Typefaces (fonts).
Resolution	The detail of an image based on the number of pixels is known as resolution. An image looks clearer when it has a higher resolution.
Pixels	Pixels are square-shaped dots that make a digital raster image. The more pixels an image has, the higher its resolution.
Opacity	Opacity is the transparency of an image. The more transparent and image, the lower its opacity.
Hue / Saturation	Hue is pure color. Saturation is defined by the intensity of color.
JPEG, PNG, PSD,	File Formats. JPEG and PNG (Image that cannot be edited) PSD is the Photoshop Document that you can go back to and edit.
Composition	Composition is the arrangement of design elements that form a whole image.



WISDOM HAS BUILT Design and Technology – Digital Graphics **HERSELF A HOUSE.**

Department of Design and

Technology. Remove specific areas with the magic wand









Ctrl + D = Deselect

Click on the image you want to edit with the Move tool

Select the Magic Wand It might be behind the quick selection tool so to find it click and hold to see the tools behind it





me

Tool Bar	Select	Edit	File
Move tool	Deselect Ctrl + D	Undo Ctrl + Alt + Z	Open New File > New > Print > A4
Size of image (Ctrl + T) -Hold shift to keep in shape -Enter, when done	Select > Subject (person or object)	Redo Ctrl + Y	Open (Recent) Files > This PC > your area E.g. (21jonesk@st-josephs)
Magic Wand	Inverse Ctrl + Shift + I (Backspace to remove)	Cut Ctrl + X	Save as SAVE IT IN YOUR AREA (21jonesk@st-josephs)
Polygonal lasso tool	Size of image (Ctrl + T) -Hold shift to keep in shape -Enter, when done	Copy Ctrl + C	Film images
Eraser		Paste Ctrl + V	Robot imagery bank Files > This PC > Students > Year 7 > Design and technology > Graphics > Imagery for Robot

Remove a background on Photoshop



To practice at home you can use photopea which is a free web based programme.

Project brief: Through learning how to use some basic skills in Photoshop, you will create the design for a Popcorn Tub from your choice of film including relevant packaging symbols and components. When your design has been completed, you will be able to assemble it and apply a foil finishing effect.

What is the keyboard shortcut for –	Year 8 Digital Graphics
Copy Paste Cut Save Undo Redo	Find a piece of graphic design work. Label it to show where you can see
Inverse Size	where pixels may be, or where typography may have been used, or where
	the hue or saturation may have been altered.
Define the following words -	
Laver	
Typeface Resolution Opacity	
Hue / Seturation Divola	
Hue/ Saturation Pixels	
What is the name of the free web	
based programme you can use to	
practice at home?	
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WISDOM HAS BUILT HERSELF A HOUSE. Department of Design and Technology.

D & T Food



Tooth decay	Language for Learning	The government recommend that 50% of
Sugar is a leading cause of tooth decay. Every time we eat or drink foods containing starches or free sugars a sticky film builds up on the enamel of the teeth, this is called plaque. Bacteria feeds on the plaque and turns it into acids. The acids gradually erode the protective white enamel surface of the teeth, leaving a hole into which bacteria can enter and cause an infection and eventual decay of the tooth. Tooth decay can be avoided by	Diet related illness Diabetes type 2 Obesity Coronary heart disease Tooth decay Sugary carbohydrates Starchy carbohydrates Saturated fat Insulin Plaque acid Energy balance	 the food that we eat daily should be carbohydrates, most of which come from starch and naturally occurring sugars. The recommended daily amounts of free sugars are shown below Children aged 4-6 – 19g (4 teaspoons) Children aged 7-10 – 24g (5 teaspoons) Children aged 11-adults – 30g (6 teaspoons)
limiting sugary foods and drinks, brushing teeth twice a day and drinking water after meals to cleance the mouth	Bridge hold	Claw Grip 🚺 🧆 😵 🔞

Type 2 diabetes

Glucose enters the bloodstream after it has been absorbed from the food we eat. In order to get into the bodies cells (muscles) it needs a hormone called insulin which is produced in the pancreas. Imagine that each of the bodies cells has a door which needs to be unlocked before glucose can get in. The key to unlock the door is insulin. If there are no 'keys' (insulin) the door will stay shut & the glucose will stay in the bloodstream. This is what happens in type 2 diabetes. Symptoms include: feeling weak/tired, weight loss and blurred vision.

Type 2 diabetes can develop in people who eat too many refined/sugary carbohydrates e.g. white bread, rice, cake, sweets. This is because the pancreas has to keep producing lots of insulin to deal with the large amounts of glucose in the blood and eventually the locks on the doors to the bodies cells become damaged.

People who are overweight or obese are more likely to develop type 2 diabetes.

The government recommend that 50% of the food that we eat daily should be carbohydrates, most of which come from starch and naturally occurring sugars. The recommended daily amounts of free sugars are shown below

- Children aged 4-6 19g (4 teaspoons) .
- Children aged 7-10 24g (5 teaspoons) .
- Children aged 11-adults 30g (6 teaspoons) .





Coronary heart disease (CHD)

The heart has its own blood supply that is brought to it by the coronary arteries, these need to be kept clear inside otherwise the blood will struggle to pass through them & CHD develops. The coronary arteries can become blocked with fatty deposits. If people are overweight or obese, this can put extra strain in the heart as it tries to pump blood around the body leading to CHD. If the heart muscle does not receive enough oxygenated blood because the arteries are blocked, the heart will stop working. This may result in a heart attack which will permanently damage the heart muscle and could result in death

D & T Food

Saturated Fats









Obesity

All foods contain energy (calories). Obesity is cause by not being in energy balance. If a person consumes more energy than their body uses this will be stored as fat and gradually they will become over-weight or obese. Many processed foods such as snack foods, fast food & cold drinks provide lots of energy (calories) because they contain lots of hidden fat and sugar. The extra weight being carried by the body puts stress and strain on the heart and blood vessels, liver, kidneys, skeleton and muscles. Obesity can lead to serious health conditions such as heart disease, high blood pressure. cancer, arthritis and type 2 diabetes.

I		Key Practical Skills		
	Knife Skills Vegetable preparation Boiling	Baking Boiling Simmering Dough making Assembling	Reduction Sauces High risk foods Shaping	- Alexandre

List 3 types of food for each type of carbohydrate:	1. What types of foods contribute to Coronary Heart Disease?	1. What is obesity?
Complex Carbohydrates (starches)		9
1	2. Explain how the arteries become	2. Name at least 5 types of foods which
2	blocked.	are more likely cause obesity
3 55 555 555		1
Simple carbohydrates (naturally occurring		2
sugars)	1211 201201 21 20220 11212	3
1	What can happen if the arteries	4
2	become blocked?	5
3 Free Sugars Instituted as associated		2. What damage can being observed a to
carbohydrates		the body?
1	4 How can we bein to prevent CHD?	the body:
2	A. How can we help to prevent end?	
3		
 Which types of foods can cause 	1. Which Foods cause of tooth decay?	
diabetes type 2?		4. What does the term 'energy balance'
		mean?
2 What are the sumptoms of diabates	2 How does tooth decay bappan?	
type 2 - how can it make people	2. How does tooth decay happen!	
feel?		
		5. How can people try to stay a healthy
	3. How can tooth decay be prevented?	weight?
3. How can diabetes type 2 be	1.153 84	60201 (T. ANY)
prevented?		
		D Q T Lood

D & T Textiles

In this project you will consolidate your learning from Year 7- using machine sewing skills.

You will learn about fibers and how they are processed to created

different fabrics. You will learn where different fabrics come

from and the properties of various fabrics.

Using a design brief you will complete a task analysis and choose a client to design a product for.

Using the knowledge and practical skills you will design and make a textile product and will used recycled or sustainable fabric of your choice.

Layplanning



Key Words	Explanation
Needle	Used with thread to sew fabric together.
Layplan	A 'Layplan' or 'Layplanning' is a term used to describe the important part of placing templates and cutting them out.
Thread	Used with a needle to sew fabric together.
Stitch Unpicker	This piece of equipment can undo any stitches when you have made a mistake
Fabric Scissors	Used to cut fabric only.
Embroidery	A range of decorative stitches.
Fabric	Used as the main material in textile items.
Pins	Used to hold fabrics together temporarily.
Pattern	A paper template of the sections of your product
Fibres	Fibers make yarns and yarns are further converted into knitted or woven fabrics of which end products are made using different textile processes.

The fibres are short and fluffy

They are brushed in the same direction

They are spun into yarn.

Then they are made into fabric







D & T Textiles

Design Brief and Task Analysis:

- What is a design brief, and why is it important to complete a task analysis before starting your project?

- How do you choose a client for your design, and what factors should you consider?

Recycled or Sustainable Fabric:

- Why is it important to use recycled or sustainable fabric for your textile product?

- Can you give examples of sustainable fabrics and explain their benefits for the environment?

Layplan:

- What is a layplan, and why is it important in Textile projects?

- How can a layplan help you make the most of your fabric when cutting out patterns?

Stitch Unpicker:

-What is a stitch unpicker, and how is it used in sewing?

-Why is it helpful to have a stitch unpicker when working on textile projects?

Fabric:

-What is fabric, and why is it important to understand its properties when choosing materials for a project? -How do different types of fabric affect the look and feel of the final product?

Pins:

-What are pins used for in sewing, and how do they help during the construction of a bucket hat? -Why is it important to use pins carefully to avoid damaging your fabric?

Pattern:

-What is a pattern in sewing, and how is it used to create a bucket hat?

-How can you ensure that your pattern pieces are placed correctly on the fabric before cutting?

Fibres:

- What are fibres, and how are they processed to create fabric?

Developing your ability to <u>communicate character and story tell.</u> Using <u>stimuli, given</u> <u>circumstances and improvisation</u> to create performances.

Key words	Meaning
Improvise	To make something up not using a script.
Given Circumstance	These are what the playwright gives you, this could be a location, a set of characters
Stimuli	This is a starting point, it could be a picture, song, a piece of dialogue, a book
Development	To make changes to improve you performance to improve.
Creating	The ability to work within a group and develop a performance

Key skills for an	Actors skills	Definition
<u>effective</u>	Facial expression	Using your face to communicate character feelings or emotions
improvisation:		
Creativity	Gait	The way your character walks
Discipline	Tone	The way your emotions effect your voice
Respect	Emphasis	Putting stress on a word or phrase
Communication		

Question	Your answer
What is a stimuli?	
What is gait?	
What are the 4 key skills an effective performance?	
Improvisation is	

In this scheme of work what are the 2 things we are focusing on developing? Looking at the image to the right. How have the actors used facial expressions to show their emotions?



Developing your ability to <u>communicate tension and suspense</u> through a <u>dramatic</u> <u>performance.</u> Using a plot line from famous <u>Urban Myths as a starting point.</u>

Key terms for the topic	Definitions
Suspense	a state or feeling of excited or anxious uncertainty about what may happen
Tension	a feeling of nervousness before an important or difficult event
Urban Myth	a traditional story, especially one concerning the early history of a people or explaining a natural or social phenomenon, and typically involving supernatural beings or events. They can vary in narrative dependent on who is telling the story.
Development	The process of changing and improvement

<u>Kev skills for an</u>	Actors skills	Definitions
<u>effective</u>	Gesture	Using your hand or arms to communicate meaning
Clear story	Proxemics	Use of space and closeness to your fellow actors
Build tension	Volume	How loud or quiet your voice
and suspense Setting the scene	Body language	Using your body to communicate how your character is feeling for example scared, shy, annoyed.



What is the difference between a story and an urban myth?

Question	Your answer
What does suspense mean?	
What is gesture?	
What are the 3 key skills an effective performance?	
What does development mean in drama?	

In this scheme of work what are the 2 things we are focusing on developing?

Can you research 2 urban myths and put the titles below:

Explore the **theatrical style of Verbatim**. Develop an understanding of why and how Verbatim theatre can be used and deepen understanding of **difficult societal topics**.

Key words	Meaning		
Verbatim	Using peoples real word to create a performance. This could include, news reports, court transcripts, interviews, videos, TikToks and much more.		
Monologue	A long speech by one actor on stage		
Truth	Something that is a fact or reality		
Opinions	A view or judgement that belongs to a person, that can be agreed with or disagreed with.		
Recorded Delivery	Is a technique used by Alecky Blythe and other Verbatim practitioners to record their interviewees, to make sure their performance is accurate.		
Key skills for an	Actors skills	Definition	
effective performance:	Posture	They way your character sits or stands	
Discipline Respect	Pause	Moments of silence within speech, these can add tension or get the audience to think	
words	Tone	The way your emotions effect your voice	
	Pitch	How high or low your voice is this can show your age or gender.	

What is verbatim used for?



Question	Your answer
What does recorded delivery mean?	
Who is Alecky Blythe?	
What are the 4 key skills an effective performance?	
What is a monologue?	

What are the some of the things we can use to create Verbatim theatre?

Can you think of any other ways to gather information that you could create a script?

ENGLISH - Freedom and Injustice - What will I study?

In this unit, you will explore the themes of Freedom and Injustice, looking at real world examples with the focus on racism in particular. You will read our key text for this unit entitled 'Windrush Child' by Benjamin Zephaniah. The book, which has been endorsed by Amnesty, is considered an essential read for young people as it depicts the integral contribution the Windrush generation made to Britain but also the issues they faced when arriving to the UK. You will learn about inclusivity and diversity, looking at how the novel gives a voice to a generation of children whose stories have often been overlooked.

Plot Summary: Windrush Child		Core Knowledge: Writing to argue		Vocabulary		
A young boy, Leonard, is waving goodbye to all he's ever known – his grandmother, palm trees and the shores of his Caribbean home. He and his parents are stepping into an adventure across the ocean in search of something new. Ahead of him are rough waters, the journey is long, but a new beginning is on the horizon. Set in 1958, Leonard travels with his mother from Jamaica to England to join his father. The novel follows Leonard as he struggles to adapt to life in Britain. Although Windrush Child is a fictional story, Benjamin Zephaniah was inspired by historical events when he wrote Windrush Child. He also drew on his own experience of growing up in Britain in the 1960s.		DAFOREST persuasive writing techniques		WORD	Definition	
		Direct Address	When the writer addresses the reader directly using pronouns such as 'you'/'we'	injustice	Lack of fairness or justice	
		Alliteration	Using a series of words in succession that begin with the same consonant sound.	Segregation	The action of separating someone or something, to keep people or things apart.	
		Fact	A statement that is true and can be proven.	Compassion	To have sympathy or concern for others.	
		and the second s	Someone's point of view of/about something. It is	Forgiveness	To forgive, to stop feeling anger.	
		Opinion not always based on fact or knowledge.	Oppression	Prolonged cruelty or unjust		
Key Skill: Evaluate		Repetition	To repeat the same word/phrase/sentence more	Malevolent	A wish to do harm onto others.	
Point	Focus on the question.	I agree that		than once for effect.		
Evidence	Refer to a method and quotation	The writer uses	Rhetorical Question	A question that does not require an answer, usually posed to emphasise an idea/opinion.	Prejudice	Preconceived negative opinion that is not based on reason or experiences.
Analysis	Explain how the method	This suggests	Exaggeration	A statement/information that is untrue	SMSC and Big Questions	
	supports your point	inis suggests	ests		 Do you think it is ever truly possible to achieve equality in every aspect of our lives? What brings about inequality and how can we overcome it? Should one man's sacrifice be for the greater good? What is meant by democracy? 	
Zoom in	Make specific reference to a detail from the method	The use of	Emotive Language	Words deliberately chosen to create emotion in the reader.		
Link / Evaluate	Explain/evaluate how the method further clarifies	This further creates a sense	Statistics	Factual data in numerical form used to convince the reader. (Either fractions or percentages)		
your point o		of through	Triple (Rule of	A list of 3 adjectives/phrases in succession for effect, usually to emphasise a strong idea.	 Why is community cohesion so important? Do you think we can ever be rid of injustice and segregation? 	

English
Questions – Freedom and Injustice Unit

- 1. Write the definition of the following word: Injustice
- 2. What is the term used to describe the action of separating someone or something, to keep people or things apart?
 - (a) Compassion (b) Segregation (c) Oppression (d) Prejudice
- 3. What is a direct address?
- 4. What does it mean to EVALUATE?
- 5. What does the word COMPASSION mean?
- 6. What acronym do we use to write an analytical paragraph? Can you explain what each letter stands for?
- 7. Explain what it means to persuade someone.
- 8. What is the name of the writer of 'Windrush Child'?
- 90. What doorsd Model With an means prolonged cruelty or unjust treatment?
- 11. What is the name of the main character in the story?
- 12. Where does the character travel from and to in the story?
- 13. Who does the main character leave behind?
- 14. When is the story set?
- 15. Who does the character travel with and who do they join in England?

ENGLISH - One World, Many voices - What will I study?

In this unit, you will begin by being able to discuss and identify the differences between authors from different

centuries. Using a range of extracts from 19^{th,} 20th and 21st Century authors,

spanning different genres. Bronte, Shelley and Jacobs feature in the 19th

Century texts. Moving onto Regency England with Jane Austen and studying a

Key Writing S	kill: Narrative	Key Vocabulary			
Language De	vices to use in a narrative:	Key Word:	Definition:		
and contact		Utopia	An imagined place or state of things in which everything is perfect:		
Vocabulary	Using sophisticated Vocabulary.	Peace	Freedom from disturbance; tranquillity:		
		Integrity	The quality of being honest and having strong moral principles		
Alliteration	Using a series of words in succession that begin with the same consonant sound.	Corruption	Dishonest or fraudulent conduct by those in power, typically involving bribery		
	Can be a surprising comparison, could	Core Skill:	Narrative Writing		
Metaphor	symbolise, could shock the reader into thinking	Narrative I • Introd	ormat and Structure luction – makes an insight into the story, states the purpose of		
Personification	Giving an object a human quality	 writing, and includes an engaging element to hook the reader; Main body paragraph 1 - rising action; Main body paragraph 2 - climax; 			
imagery	Using strong vocabulary or devices to create a clear visual description in the reader's mind.	· Conclu	ision – lessons learned from the story.		
	To see the second debased on the	Core Know	ledge: How to approach an Unseen poem		
Repetition	more than once for effect.	1. Read the about. Th	poem and write down one word to summarise what you think it is ink about		
(Rule of three)	A list of 3 adjectives/phrases in succession for effect, usually to emphasise a strong idea.	• Wha • How	might be speaking they might be feeling		
Emotive Language	Words deliberately chosen to create emotion in the reader.	2. Read the thoughts	poem again. Pick out three quotations that present the writer's and feelings.		
Simile	Using like or as 'glimmered like a ghost'.	about wh	at certain words and phrases suggest to you.		
Pathetic Fallacy	Helps to reflect atmosphere / rising tension in the plot. Could foreshadow events in the story.	• W th • W	hat is the poem saying? Why has it been written? What ideas are ey using? 'hat response does it get from the reader?		

English

Knowledge Checking Questions – One World Many Voices Unit

- 1. Write the definition of the following word: Utopia
- 2. What is the term used to describe dishonest or fraudulent conduct by those in power,

typically involving bribery?

(a) Compassion (b) Collaboration (c) Corruption (d) Coercion

- 3. In this unit we will explore works of authors from three different centuries. What are those three centuries?
- 4. What is a NARRATIVE?
- 5. What does the word INTEGRITY mean?
- 6. How many steps are there to approaching an unseen poem?
- 7. What word, beginning with P, means freedom from disturbance?
- 8. Name a writer we will explore from the 21st century.
- 9. What is personification?
- 10. What is imagery?
- 11. What is the name of the device where the weather reflects the mood or atmosphere of a text?
- 12. Explain what a metaphor is.
- 13. Monstrisarising activition are there to a successful narrative structure?
- 15. Give an example of alliteration.



Le Français

Tu es sportif? Tu	Tu es sportif? Tu es sportive? Are you sporty?						
Je suis Tam	assez quite très very	sportif. sporty.	Je joue ^{I play}	au	basket. <i>basketball.</i> billard. <i>pool.</i> foot(ball). football. hockey. <i>hockey.</i> rugby. <i>rugby.</i> tennis.		
					volleyball.		
Je ne suis pas ^{I am}	not très very			à la	pétanque. boules.		
				aux	boules. boules. cartes.		

Tu fais quel sport? Wh	ich sport do	o you do?					
					basket. bas	ketball.	
					billard. pool		
Je joue I play					foot(ball). fo	ootball.	
Tu joues You play					hockey. hockey. rugby. rugby.		
Elle joue She plays					tennis. tennis.		
On joue werreopie play							
Nous jouons We play					volleyball. volleyball.		
Vous jouez You play			à la péta		pétanque.	tanque. boules.	
Ils jouent They play					boules. bou	les.	
Elles jouent They play			aux		cartes. cards.		
					échecs. che	355.	
Il est He is sportif		sportif.	sporty.		au basket. basketball.		
Elle est She is Elle n'est pas She is	st She is 'est pas She is			Elle joue She	is playing as She is not	à la pétanque. boules.	

L

French

40

aux cartes. cards. aux échecs. chess.

Qu'est-ce que tu	I fais? Whe		French			
	du	judo judo patin à glace ice skating skate skateboarding ski skiing théâtre drama vélo cycling		le temps. all the time.		
Je fais I do/go	de la	cuisine cookery danse dancing gymnastique gymnastics natation swimming	tous	les week-ends. every weekend. les lundis. every Monday.		
	de l'	athlétisme athletics équitation horse riding				
	des	randonnées hiking				
Je ne fais pas de sport. I don't do sport.						

souvent	often
parfois	sometimes

Je fais parfois de la natation. I sometimes go swimming. Je fais souvent du skate. I often go skateboarding.

J'adore / love J'aime / like Je n'aime pas / don't like Je déteste / hate	bloguer blogging écouter de la musique listening to music envoyer des SMS sending texts partager des photos sharing photos partager des vidéos sharing videos prendre des selfies taking selfies regarder des films watching films tchatter chatting (online) télécharger des chansons downloading songs	avec mes copains with my mates avec mes copines with my mates sur mon portable on my phone sur ma tablette on my tablet sur YouTube on YouTube sur Snapchat on Snapchat sur iTunes on iTunes	parce que c'est because it's	amusant. fun. ennuyeux. boring. facile. easy. intéressan interesting. marrant. funny. rapide. fast.
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	1	1	¥	1
Qu'est-ce que tu aimes faire What do you like doing	le week-end? at the weekend? avec tes amis? with your friends? quand il pleut? when it rains? sur ton portable? on your phone?	Le week-end, At the weekend, Avec mes amis, With my friends, Quand il pleut, When it rains, Sur mon portable, On my phone,	j'aime I like	jouer au golf. playing golf. écouter de la musique. listening to music. retrouver mes amis. meeting up with my friends. envoyer des SMS. sending texts.
Est-ce que tu aimes <i>Do you like</i>	faire du judo? Oui, j'aime Yes, I like u aimes prendre des photos? Non, je n'aime pas No, I don't like jouer aux échecs? Non, je déteste No, I hate			faire du judo. doing judo. prendre des photos. taking photos. jouer aux échecs. playing chess.

Qu'est-ce qu What do you usu	ue tu fais norm	nalement?	Qu'est-ce que tu vas faire? What are you going to do?			
	jevais /go	au cinéma. to the cinema. au parc. to the park. à la patinoire. to the ice rink.		je vais aller I am going to go	au cirque. to the circus. au zoo. to the zoo. à New York. to New York.	
	je fais <i>I do</i>	mes devoirs.	Le week-end prochain,	je vais faire I am going to do	la cuisine pour ma famille. the cooking for my family.	
Normalement,		les magasies	Next weekend,	je vais faire	les magasins à Paris.	
Usually, D'habitude,	je fais I go	e fais I go hiking. hiking.	je vais faire I am going to go on	un tour en Segway. a Segway tour.		
Usuany,	je joue I play	au hockey. hockey. au tennis. tennis. aux boules. boules.	Dimanche prochain, Next Sunday,	je vals jouer I am going to play	au basket. basketball. au hockey sur glace. ice hockey. au laser-tag. laser-tag.	
\$	je mange <i>I eat</i> ie mange <i>I eat</i> de la salade. salad. des frites. chips.			je vais manger I am going to eat	une glace. an ice cream. une pizza. a pizza. un gâteau au chocolat. a chocolate cake.	

Bonjour, je m'appelle Lucy Hello, my name is Lucy			et	et j'ai and I have divide quator quinze seize dix-se dix-hu		onze douze treize quatorz quinze seize dix-sep dix-huit	eleven twelve thirteen ce fourteen fifteen sixteen t seventeen eighteen	ans. years old.		
Je suis très l am very amusant(e), fun intelligent(e), in sympa, kind,		funny, intellig	gent, mais parfois je suis aussi un peu but sometimes I am also a bit		aussi un peu o a bit	arrogant(e). arrogant. méchant(e). nasty/bad. timide. shy.				
Souvent, Often, Le week-end, At the weekend, Tous les jours, Every day,		adore Iove	ore danser dancing jouer au tennis playing tennis faire du judo doing judo		parce que c'est because it's	génial. great. hyper-cool. very cool. intéressant. interesting.				
Quand il When it	pleut, rains, fait beau, is fine, neige, snows,	j'aime Tlike	nager, swimm jouer playing prend taking	ing, aux ca cards, re des selfies,	rtes, selfies,	mais je n'aime pas but I don't like		bloguer blogging faire des randonnées going hiking tchatter chatting (online)	parce que c'est because it's	difficile. difficult. ennuyeux. boring. nul. rubbish.

Geography - Population

Key Terms and Definitions

Population: The total number of people living in a particular area.
Population Distribution: How people are spread across a given area.
Population Density: The number of people living per unit of an area (usually per square kilometre).

Sparsely populated: When there are fewer than 100 people per km2. **Densely populated**: When there are fewer than 100 people per km2.

Birth Rate: The number of live births per 1,000 people per year. **Death Rate**: The number of deaths per 1,000 people per year. **Natural Increase**: The difference between the birth rate and the death rate.

Migration: The movement of people from one place to another. Immigration: Moving into a country. Emigration: Moving out of a country.

Urbanisation: The increase in the proportion of people living in urban areas compared to rural areas.

Key Concept 1: Factors Affecting Population Distribution

•**Physical Factors:** Climate, relief (landscape), soil fertility, water supply, availability of natural resources.

•Human Factors: Employment opportunities, political stability, infrastructure (roads, electricity availability, etc), cultural factors.





A map showing population density across the world. Darker colours = high population density Lighter = low population density



Key Concept 2: Migration

Geography

- Types: Internal (within a country) and International (between countries).
- Push Factors: Reasons for leaving a place (e.g. flooding, war, lack of jobs, earthquakes).
- Pull Factors: Reasons for moving to a new place (e.g. more suitable climate, better jobs, safety).

We studied an example of a very common migration route (where thousands of people every year leave Mexico to move into the USA). Make sure you know some of the push and pull factors that have resulted in this trend:

Push factors (forcing people out of Mexico):

Unemployment and Underemployment: Limited job opportunities and low wages drive people to seek better prospects elsewhere.

Poverty: High levels of poverty in many areas push individuals to migrate in search of better living standards.

Crime and Drug Cartels: High levels of violence, crime, and the presence of drug cartels make certain areas unsafe, prompting people to leave for safer environments.

Education and Healthcare: Poor access to quality education and healthcare services can push families to move out.

Pull factors (attracting these people into the USA):

Job Availability: The US labour market offers more diverse job opportunities and higher wages compared to Mexico.

Better Education Opportunities: Access to better education for children is a significant pull factor.

Advanced Healthcare: Higher quality healthcare services attract families seeking better medical Lowner. Crime Rates: Many areas in the US are safer compared to certain regions in Mexico.

Questions	Your answers	Geography
What is the meaning of sparsely populated?		
What is the meaning of the term birth rate? (be precise)		
What is the movement of people between two places?		
List 3 physical factors that affect population density.	1. 2. 3.	
List 3 human factors that affect population density.	1. 2. 3.	
What is the meaning of the term pull factor?		
List 3 push factors that force people out of Mexico.	1. 2. 3.	
List 3 pull factors that attract Mexicans into the USA.	1. 2. 49 3.	

Geography – China and Asia

1. Physical Geography of China

•Location:

- Eastern Asia, bordered by 14 countries, including India, Russia, and Mongolia.
- Latitude and Longitude: Approximately 35°N, 103°E.

•Major Landforms:

- Mountains: Himalayas (home to Mount Everest), Kunlun Mountains, Tianshan Mountains.
- Plateaus: Tibetan Plateau (the "Roof of the World").
- Deserts: Gobi Desert, Taklamakan Desert.
- Rivers: Yangtze River (longest river in Asia), Yellow River, Pearl River.
- Plains: North China Plain, Manchurian Plain.
- 2. Human Geography of China

•Population:

- Over 1.4 billion people, the second largest population in the world (behind India).
- Major cities: Beijing (capital), Shanghai (largest city), Guangzhou, Shenzhen, Chongqing. •Urbanisation:
 - Rapid urbanisation with significant migration from rural to urban areas.
 - There are 17 mega-cities in China (with populations exceeding 10 million).
- 3. Economic Development in China

•Economic Growth:

- One of the fastest-growing economies in the world.
- Transition from an agrarian economy to an industrial and service-based economy. •Industries:
 - Major industries: manufacturing, technology, textiles, electronics, automotive, steel.
 - Leading producer of goods such as smartphones, computers, and solar panels.

Geography – China and Asia

4.Environmental Issues in China: due to economic development and urbanisation, China has a lot of environmental problems:

•Air Pollution:

- Major cities like Beijing and Shanghai face severe air quality issues.
- Causes: industrial emissions, vehicle exhaust, coal burning.

•Water Pollution:

- Rivers and lakes contaminated by industrial waste and agricultural runoff.
- Efforts to clean up major waterways like the Yangtze and Yellow Rivers.

•Deforestation and Desertification:

- Loss of forests due to urban expansion and agriculture.
- Desertification in northern regions like Inner Mongolia.

•Climate Change:

- Melting glaciers in the Himalayas and some rivers running dry have affected the water supply.
- Government has created initiatives to reduce carbon emissions and promote renewable energy.

5. The Three Gorges Dam Project

Part of China's attempts to reduce carbon emissions, the Three Gorges Dam is the world's largest hydroelectric power station, located on the Yangtze River in Hubei province, China. Construction started in 1994 and it was finally completed in 2012.

However, it has been a very controversial development, with a number of issues created (to go along with

many positive effects).

Benefits of the Three Gorges Dam 1.Hydroelectric Power Generation:

1. The dam produces approximately 100 TWh of electricity annually, making it the world's largest power station in terms of installed capacity (22,500 MW).

2. Provides a substantial source of renewable energy, reducing reliance on fossil fuels and decreasing greenhouse gas emissions.

3.Flood Control:

1. Helps in managing and mitigating the risk of devastating floods in the Yangtze River basin, protecting millions of people and vast areas of farmland.

2. Reduces flood peaks and provides better water regulation during rainy seasons. 3. Improved Navigation:

1.Enhances river navigation by increasing the depth and width of the Yangtze River, allowing larger vessels to travel further upstream.

2.Boosts trade and economic development in the inland regions of China by improving transportation efficiency.

4. Economic Development:

1. Stimulates local and national economic growth through job creation during construction and ongoing operations.

2. Attracts investments and promotes tourism in the region, contributing to the local economy.

Problems Created by The Three Gorges Dam

1.Environmental Impact:

1. Biodiversity Loss: Disruption of natural habitats and ecosystems, affecting various species of flora and fauna, including endangered species.

2. Sediment Build-up: Alters natural sediment flow, leading to sediment accumulation in the reservoir and erosion downstream, which can impact river ecosystems and agriculture.

3. Water Quality: Potential deterioration of water quality due to industrial and agricultural runoff, leading to algal blooms and other water pollution issues.

1.Social Impact:

- 1. Displacement: Over 1.3 million people were relocated due to the flooding of their homes and land, leading to social and economic challenges for affected communities.
- 2. Cultural Heritage Loss: Submersion of numerous archaeological and cultural sites, resulting in the

loss of historical heritage and displacement of local cultures.

- 3. Geological Risks:
- 1. Landslides: Increased risk of landslides in the reservoir area due to changes in water levels, which can threaten lives and property.

2. Seismic Activity: Concerns about induced seismicity (earthquakes) due to the enormous weight of the water in the reservoir.

- 4. Economic Costs:
- 1. High Initial Investment: The construction of the dam was extremely costly, with estimates ranging from \$28 billion to \$88 billion.

2. Maintenance and Operation: Ongoing costs for maintenance, sediment management, and addressing environmental and social issues add to the long-term economic burden.



History Year 8.1 : The Agricultural Revolution





Key Ideas Key Vocabulary During the Agricultural Revolution the open field system Revolution – a sudden and came to an end when villages were enclosed. This important change in a society **The** increased the amount of food & allowed more people **Open Field System** – a three field to leave the countryside & move to towns. system from the middle ages. •Turnip' Townshend introduced the Norfolk four-Three Field Crop Rotation Field 1 course rotation of wheat-turnips-barley- clover. = Wheat; Field 2 = Barley and •Robert Bakewell used selective breeding to develop Field 3 = FallowThe Common Land – Land that the New Leicester sheep. •Coke of Holkham publicised the new ideas by inviting was shared by the villagers. hundreds of people to his 'sheep shearings' Enclosure – the process of competitions-Coke's Clippings. enclosing the open fields. Poverty •Arthur Young wrote about the new methods. - the poor people. Agricultural •Enclosure of the land was good for the country **improvers** – people who brought because the growing population could be fed. new farming ideas. Selective •The countryside became much more productive. The breeders – new methods of landowners and tenant farmers became wealthy. breeding animals. •Poor farmers lost their land in the open fields and **The Propagandists** – spread the were forced off the commons and out of their villages new farming ideas. •Some became landless labourers and others moved to the growing towns and cities.

Retrieval1.Which type of villages were enclosed in the 18th and 19th centuries?Practice2.Who developed the Norfolk Four Course Crop Rotations System?3.Who used selective breeding to develop the New Leicester sheep.4.Who ran "Coke's Clippings?"5.What did the "Propagandists" do?6.What happened to the poor farmers?

	History - Year 8 . 2 : The Industrial Revolution							
Γ	Key Terms	Key ideas	Retrieval Practice					
	Key Terms Industry – making raw materials into goods on a large scale Factory system – a new method of making goods, using new machinery Mills – factories that spun and wove cotton cloth Pauper Apprentice – orphan children who were sold by orphanages and workhouses to work in the factories Steam power – the new method of driving the factory machinery Inventions – new machines invented to spin and weave cotton, including the spinning jenny, the flying shuttle, the water frame and the nower loom	 Key ideas The industrial revolution ended the domestic system, using the new power of steam and new machines to produce goods in factories. Workers moved from the countryside to the towns, to take jobs in the factories, especially the textile mills. Conditions in the factories and mills were harsh:- Long working hours: 14 hours a day, longer in busy periods. Low wages: all workers were paid badly with women and children paid much less than men Pauper Apprentices – were not paid and were often treated cruelly: there was frequent "strappings"; other punishments included hanging iron weights around children's necks or hanging them above machinery For adults there was a system of fines: for talking or whistling, being late or having dirt on a machine etc. Frequent accidents: from forcing children to crawl under dangerous, unguarded machinery & long hours meant exhausted children had accidents. Health: cotton thread had to be spun in damp, warm conditions. Going straight out into the cold night air led to many cases of pneumonia. The air was full of dust, which led to chest/breathing problems. Living conditions in the towns and cities were terrible, leading to sickness and disease. 	Retrieval Practice1.Which system were goods made under before the industrial revolution?2.What were mills?3.Who invented the flying shuttle?4.Who developed the power loom?5.What were conditions like inside the textile mills?6.How were the pauper apprentices treated?7.How were adults punished?8.Why did the workers get ill from the cotton mills?9.What were living conditions like?10.Who was Robert Blincoe &					
			what happened to him?					

The industrial Revolution

Before factories, goods were made at home, on a small scale and the work was done in cottages. The women spun the yarn and the men wove cloth and hand looms. This system was called the domestic system and it was slow and inefficient. Good quality cloth was made in the domestic system, but there was not enough being made to clothe the growing population of Britain and a faster system of production was needed.

When new machinery was invented, it led to the development of factories. The first new machine which really sped up weaving was John Kay's Flying Shuttle. This moved the bobbin across the loom much more quickly, but the process was still manpowered. Once the process of weaving had been speeded up, there was a shortage of thread and so the process of spinning had to be speeded up. The first major change to spinning was James Hargreaves' Spinning Jenny, but this was also still a hand powered machine and the thread was not strong. After the water frame was developed by Richard Hargreaves, new spinning factories began to be opened, including one at Quarry Bank Mill in Styal, Cheshire. With the development of Samuel Crompton's Spinning Mule and Edmund Cartwright's Power Loom, large steam powered spinning and weaving mills opened up across the north west of England.

Children in the factories

Life for the children who worked in the new mills and factories could be very harsh. Some children were apprenticed as young as 7 or 8. Many children were worked too hard by unscrupulous employers and ended up with their health ruined. The children who were most at risk were the "pauper apprentices", who were bought from orphanages and workhouses to work until they were 21 in the factories. Robert Blincoe was a workhouse orphan who was apprenticed to a cotton mill. He was left disabled by his experience – a combination of the beatings, poor nutrition and back breaking working, left him with a twisted spine and disfigured head. Eventually he wrote his memoirs and gave evidence to Parliament about the lives of the factory children.



	History - Year 8. 3: Local Study – the Pretoria	Pit Disaster
Trappers	Very young child miners who opened and closed the wooden trap	Key ideas: Dangers in the Mines
	doors to allow the coal drams to pass. Could be as young as four.	Mining in deep seams of coal meant
Coal face	The exposed surface of coal in a mine.	a constant threat of collapse and
Seam	A coal seam is a banded deposit of coal that is visible within layers of rock.	made the roof more secure. Deep
Shaft	Vertical access hole which stretches down to the location of the seam.	was a constant threat of drowning.
Ventilation	The process of supplying sufficient fresh air to the miners	out and saved lives.
	underground and controlling the air that returned to the surface as	Fire Damp was flammable gas, found
	contaminated air.	in coal mines, usually methane. It
Roadways	Pathways inside the mine which the coal tubs were dragged along.	was very dangerous and gas
	Later, rail tracks were laid for the drams to be dragged by pit ponies.	explosions killed many miners. The
Drams	The wheeled tubs, filled with coal and dragged along the roadways of	introduction of the Davy lamp
	the mine to be brought up to the surface.	prevented the flame from reacting
Hurriers	Harnessed to the dram and pulled the coal to the shaft.	with the gas and changed colour
Bearers	Often women, sometimes older boys, carried the coal on their backs	when there was fire damp, to warn
	down the roadway to the mine shaft.	Choke Damp was poisopous gas -
Colliers	Miners who cut the coal from the coal face.	carbon dioxide and nitrogen, after an
Haulers	In some pits, a haulier used a pit pony to drag the coal to the shaft.	explosion it could be carbon
Choke	Poisonous gas found in the mines – often it was carbon dioxide and	monoxide. Many miners died from
Damp	nitrogen.	poisonous gas. They took canaries
Fire Damp	Flammable gas found in coal mines, usually methane.	down the mines to give them a
Cages	A safer way to transport miners down to the coal face, preventing them falling out of a bucket.	warning to get out if it died. Later, ventilation shafts were dug to
Current	A current of air was created. This was to help protect minors from choke damp and fire damp.	mines safer.

The Pretoria Pit Disaster, December 21st 1910

What was the Pretoria Pit Disaster?

The Pretoria Pit disaster was a mining accident which took place on 21st December 1910.

There was an underground explosion at the Hulton Colliery, known as the Pretoria Pit, in Over Hulton,

Westhoughton. 344 men and boys died. It was one of the worst mining disasters in UK history. The youngest who lad who died was thirteen.

What caused the accident?

The explosion was caused by a build of methane gas after a roof collapsed and it was ignited by a defective safety lamp. Only four workers survived the blast and one died when he got to the top. Another miner, William Turton, died fighting the fire.

Impact of the disaster

Many of the men and boys who died were from the same family. The worst affected was the Tyldesley family, with Mrs

White was lossed to be the families where some and the second sec

A relief fund was set up for the families who had lost a loved one and all the families were given a lump sum and weekly payments.

The Public Enquiry

There was a detailed public enquiry under the 1881, Mining Act, which said:

(1)There should be more men to deal with safety in the mine (2)A proper inspection of all lamps and a record kept of any repairs needed

(3)Stronger support for the roof.

How is the disaster remembered?

There is a memorial to the victims in Westhoughton cemetery and a service is held there each year on 21st December.

 1.What was the Pretoria Pit Disaster?
 2.What caused the accident?
 3.What was the impact of the disaster?
 4.What was done to help the families who lost relatives?
 5.What did he Public Enquiry say?
 6.How is the disaster remembered?

History

Year 8 Knowledge Organiser 4 : The Atlantic Slave Trade

Key Terms Atlantic Slave Trade – the trade in people, stolen from Africa Triangular Trade– the three way trade: British and European traders exchanging manufactured goods for African people and, selling African people in America, to buy raw goods for the factories in

Britain/Europe.

The Middle Passage – the terrible journey taken by the slaves on the slave ships, from Africa to America. Slave Auctions – the

selling of slaves to plantation owners in the Americas.

Plantations – large farms that grew one type of crop in the Americas e.g. cotton, tobacco or sugar.

Resistance – Slaves who refused to do as their masters told them.

Key ideas

Africa had its own civilizations, which were destroyed by the slave trade
Before the Atlantic Slave Trade, slavery was not based on skin colour.

•At least 12 million people were taken from Africa and most were men, which badly affected the West of Africa.

•The trade caused wars and rivalries between the African kingdoms and introduced guns to Africa.

•Slavery completely dehumanized the people caught up in it.

•The Middle Passage was a horrific experience for the slaves, most of whom were chained up below decks in filthy conditions.

•People were whipped, beaten and assaulted and the sick were thrown overboard to drown. Many of the African people did not survive the voyage.

•Those who made it through the Middle Passage were sold at auction. Almost all of them were separated from anyone they had made the voyage from Africa with.





How did the Atlantic Slave Trade work? British and European ships were filled with manufactured goods to trade in Africa – cotton cloth, pots and pans and guns. The ships were sailed to Africa, where the captains traded their goods for African people. Slavers went out to the villages of Africa, where they raided them, grabbing people, tearing them away from their families, putting them in chains and marching them to the coast, where they were traded and put onto the waiting ships.

What was the Middle Passage and why was it such a terrible experience for the slaves?

The middle passage was the middle part of the triangular trade, which was the journey that the captured African people made from Africa to enslavement in the Americas. The journey often took four months. Slaves lived in the underbelly of a dark, stench-filled, airless wooden ship, men, women and children were chained hand and foot and were left near starvation. Separated from family, friends, and loved ones, many slaves died on the Middle Passage.

Once the Africans, (who had managed to survive the appalling middle passage), arrived in the Americas they were sold. If any of them had managed to stay with a family member or friend for the middle passage, at this point they were certain to be separated from them forever. Slave hunters sailed to Africa, captured African people and forced them on to huge slave ships.

Retrieval Questions

- 1. What was the Atlantic Slave Trade?
- 2. What was slavery like before the Atlantic Slave Trade?
- 3. Why is it also called the "Triangular Trade?"
- 4. Approximately how many people were taken from Africa for the Atlantic Slave Trade?

They set sail for America,

but many slaves died on the long voyage.

- 5. What was the middle passage?
- 6. What happened to sick slaves during the middle passage?
- 7. Why was the middle passage so so territe
- 8. What happened at the slave auction?
- 9. What were plantations?
- 10. What was slave resistance?





RATIO, SCALE, MUL	Year 8 Knowledge Organis Maths Autu FIPLICATVE CHANGE and M	er - Test Your Know Imn Term 1 ULTIPLICATION	N AND DIVISION OF FRACTIONS		
 The ratio of grey to red squirrels in a forest is 15:1. There are 165 grey squirrels. How many red squirrels are there? A shop orders red and yellow flowers in a ratio of 5:2. One week they order 140 flowers altogether. How many more red flowers than yellow did they buy? 3 numbers in the ratio 2:3:7 have a mean of 48. What is the median of the 	 6. Calculate the circumference of a Diameter 4cm b) Radius 12m c) Radius 1.2cm 7. Find the perimeter of a semi diameter 6m 8. 5 scoops of ice-cream cost £4 would it cost for: 	of a circle with: Icircle with 4.50. How much	10. Give your simplified answers to these a) $2 \times \frac{4}{15}$ b) $\frac{1}{5} \times \frac{1}{2}$ c) $\frac{2}{3} \div \frac{2}{5}$ d) $2\frac{2}{5} \div \frac{3}{4}$ 11. Put the following in ascending order $\frac{1}{5} \times \frac{3}{8}$ $\frac{2}{5} \times \frac{3}{8}$ $-\frac{1}{15} \times \frac{9}{16}$ $\frac{2}{15} \times \frac{15}{16}$ $(\frac{3}{5})^2$ 12. Write these in their simplest form: $\frac{2}{5} \times \frac{w}{r}$ $\frac{4}{5w} \div \frac{r}{w}$ $\frac{3r}{5w} \times \frac{w}{3r}$ $\frac{2w}{5} \times \frac{w}{r} \div 2$		
numbers? 4. Simplify each of these ratios to find out which ones are the same. 8a:10a $16:20$ $4:50.8:1 \frac{28}{45}\frac{35}{45} 4 \times 10^3:5 \times 10^25. Write 5:3 in the form 1:n$	10 scoops, 8 scoops, 1 scoop, 9. If a car is travelling at a constitution of travels is directly protime it has been travelling. Constitute it has been travelling. So that the been travelling. So that the been travelling. Constitute it has been travelling. So that the been traveling. So the been travelling. So that the been travelli	9 scoops? tant speed, the oportional to the oplete the table. 114.2 300 ersion graph	 13. These 2 triangles are similar. Can you work out the missing length? 4m ?m 10m 14. A pirate sails from her island to find treasure. She travels 15 km North, turns East and sails 30 km, and then turns North again for the final 40 km to take her to some treasure. Draw a scale map of her journey using a scale of 1:500 000 Her parrot flies directly to the treasure. Use your map to find out how much further the pirate travelled than the parrot.		

 The ratio of grey to red squirrels in a forest is 15 : 1. There are 165 grey squirrels. How many red squirrels are there? A shop orders red and yellow flowers in a ratio of 5 : 2. One week they order 140 flowers altogether. How many more red flowers than yellow did they buy? 3 numbers in the ratio 2 : 3 : 7 have a 	 6. Calculate the circumference of a circle with: a) Diameter 4cm b) Radius 12m c) Radius 1.2cm 7. Find the perimeter of a semicircle with diameter 6m 8. 5 scoops of ice-cream cost £4.50. How much would it cost for: 10 scoops, 8 scoops, 1 scoop, 9 scoops? 9. If a car is travelling at a constant speed, the distance it travels is directly proportional to the time it has been travelling. Complete the table. 			of a circl circle wi	e with: ith w much	10. Give your simplified answers to these a) $2 \times \frac{4}{15}$ b) $\frac{1}{5} \times \frac{1}{2}$ c) $\frac{2}{3} \div \frac{2}{5}$ d) $2\frac{2}{5} \div \frac{3}{4}$ 11. Put the following in ascending order $\frac{1}{5} \times \frac{3}{8}$ $\frac{2}{5} \times \frac{3}{8}$ $-\frac{1}{15} \times \frac{9}{16}$ $\frac{2}{15} \times \frac{15}{16}$ $\left(\frac{3}{5}\right)^2$ 12. Write these in their simplest form: $\frac{2}{5} \times \frac{w}{r}$ $\frac{4}{5w} \div \frac{r}{w}$ $\frac{3r}{5w} \times \frac{w}{3r}$ $\frac{2w}{5} \times \frac{w}{r} \div 2$		
mean of 48. What is the median of the numbers? 4. Simplify each of these ratios to find out which ones are the same.) scoops ant spe portion plete th	? ed, the al to the e table.	13. These 2 triangles are similar. Can you work out the missing length?		
8a: 10a 16: 20 4: 5	Time (mins)	30	60		114.2	14. A pirate sails from her island to find treasure. She travels 1		
$0.8:1$ $\frac{28}{35}:35 \times 10^3:5 \times 10^2$	Distance (miles)	18		300		km North, turns East and sails 30 km, and then turns North again		
5. Write 5: 3 in the form 1: <i>n</i>	Extension : Can you draw a conversion graph displaying this information?			ersion gi	aph	for the final 40 km to take her to some treasure. Draw a scale map of her journey using a scale of 1:500 000 Her parrot flies directly to the treasure. Use your map to find ou how much further the pirate travelled than the parrot.		











What should I be able to do? Generate a sequence from term to term rules or nosition to term rules	Sequence, term, position, linear, non-linear, difference, arithmetic,	Mathe Spring Term 1b				
 Recognise arithmetic sequences and find the nth term Recognise geometric sequences and other <u>sequences that arise</u> 	geometric Sequences from Algebraic Rules: Substitution 2n + 5 Substitute the number of the	Complex Algebraic Rules : Take care with the subtle differences between the				
Linear Sequences – increase by addition or subtraction and the same amount each time	term you are looking for in place of 'n' 1 term 2(1) + E = 7	way terms are written. $2n^2$ means 2 multiplied by whatever n				
Non-linear sequences – do not increase by a constant amount – quadratic, geometric, Fibonacci	2(1) + 5 = 7 2 nd term $2(2) + 5 = 9$	squared is $2 \times 1^2 = 2$ 1^{strem} $2 \times 2^2 = 8$ 2^{nd} term				
 The differences between the terms can be 	3 rd term $2(3) + 5 = 11$ So the sequence is 7 , 5 , 9 , This is a linear sequence and can also be	$2 \times 3^2 = 18$ 3^{rd} term $means 2$ $(2n)^2 \text{ means } 2$				
division Fibonacci sequence	identified by the single power of <i>n</i> To check if 201 is in this sequence, form an equation	square the answer 1^{st} term $(2 \times 1)^2 = 4$				
0, 1, 1, 2, 3, 5, 8, 13, Each term is the sum of the two previous terms	2(n) + 5 = 201 and solve to see if there is an integer solution	2 nd term $(2 \times 2)^2 = 16$ 3 rd term $(2 \times 3)^2 = 36$				
Finding the Algebraic Rule: What is the nth term for the sequence 7, 11, 15, 19,?						
4n is the 4 times table,4, 8, 12, 16,ThisMaths $4, 8, 12, 16,4, 8, 12, 16,This7, 11, 15, 19,7, 11, 15, 19,7, 11, 15, 19,$	+ J (difference) s the between the times ant table it links to and the sequence					
	terms					


Maths



Maths

Music – Year 8.1





Music – Year 8. 2



As well as recapping the four chords from last year; C, G, Am, F we are now learning some new ukulele chords and adding these to different songs; Em, D.

In ukulele and guitar music we can read 'TAB' to be able to play melodies. TAB stands for 'tablature' and it is a simplified way of reading sheet music. TAB acts as a visual fret board. The numbers tell you which string on the fret to hold down.

Key words	Definition
Unison	All the musicians play the same thing at the same time
Canon	When the musicians perform the same thing one after each other.
ТАВ	A method of reading sheet music on the ukulele/ guitar involving numbers.



Music – Year 8.2



Fill in the blank chord charts for the following chords;

C, G, Am, F

Fill in the gaps

A ______is where we play _____or more notes at the same time. A ______can either be major or _____. We can tell the difference because major sounds ______ and minor sounds ______. We can also play melodies or riffs on the guitar/ukulele from reading ______. TAB uses ______to tell us what string to hold down. What is TAB?

Does TAB tell us chord or melodies?

TAB, Minor, Chord, Sad, Happy, Two, Chord, numbers

Participation

•It is expected that your child brings full kit and changes into it for every physical education lesson even when a note has been written to excuse them from active participation in the lesson.

•The reasons for this are that, in addition to performance, part of their assessment and curricular provision comprises several other factors. Including;

- Understanding the health related components of physical education
- Evaluating their own and others performance.
- The role of the coach, referee or umpire etc.
- Some students may still be able to participate in certain aspects of the lesson for example the warm up to maintain fitness and involvement of the lesson.

•In view of this your son/daughter, whilst possibly excused from active performance is expected to officiate, coach and organise, for example, warm up and cool down activities for the rest of the group.

•If your son/daughter arrives at the lesson without appropriate PE kit, we will provide kit from the supply we have in school.

I have read and understand the PE policy for participation

•Signed (Parent/Carer)

- •Signed (Child)
- Date

Physical Education – Badminton

Key skills: READY POSITION - balanced position, side on, racket up and ready, on toes.

SERVING – There are several types of serve –

short/backhand, long ,flick. A backhand serve should land close to the service line on your opponents side of the net. The racket head must start from below the waist.

UNDERARM CLEAR (long serve) – This shot is played high to the back of your opponents court. Start sideways on and use a whip action with the wrist to create power.

OVERHEAD CLEAR - Played to the back of your opponents' court and is a defensive shot. Start sideways on, racket up and behind you, focus on making contact with the shuttle in front of you.

DROP SHOT- a shot played with finesse to land the shuttle as close as possible to the net on your opponent's side.

SMASH SHOT – This is the main attacking shot in badminton. It is an overhead shot, hit in front of the body, that aims to get the shuttle down on the floor at a shar angle. The wrist needs to "snap" to get it down.

TACTICS -Hitting into space – moving partner aroun

the court

Shot selection – selecting the right shot for the right situation

Targeting opponents weaknesses

Disguised shots – trying to make it look like y are going to play a particular shot but t pla different shot to fool an opponent.

Doubles play – role of players in doubles. Front/back formations or side to side.

Rules

Game starts with a diagonal serve- right hand side to right hand side Serve must land over the service line Play to 21 points – but must win by 2 clear points. A point is won every rally Whoever wins the point serves next When score is even, serve from right, when score is odd, serve from left Court is long and thin for singles, short and wide for doubles

You cannot hit the net with your racket or body



Grip and ready position **Drop shot** Rally Serve backhand/sho rt, long, flick **Ready position** Overarm clear Underarm **Disguised shot**

Physical Education – Badminton questions



Physical Education – Basketball

Key skills: Dribbling: Head up, spread fingers and fingertips, waist height.

Chest Pass: W grip, step, chest to chest, follow through, short distance. **Bounce Pass:** W grip, step, chest to chest, follow through, bounce before player, short distance.

Pivoting, footwork and jump stop: Landing on alternative feet- first foot to land is the static pivoting foot.

Landing on simultaneous feet- either foot can becom static pivoting foot/can be used at the end of dribble or when receiving a pass.

On the move- release ball before third step.

Set shot: Knees bent, dominant foot slightly in front of other, strong hand at bottom, supporting hand on side, and elbow at 90 degrees.

Lay-up Strong hand at bottom, supporting hand on side, keep it high, right hand dribble, step right, jump left aim for top right hand corner of box, left hand dribble, step left, jump right, aim for top left corner c box.

Defending_Man to man- knees bent, back straight, head up, arms out, watch opponent's belly-button. **Attacking**: Dribble into space, screen defenders, dribble out wide and quick inward passes, drive towards ball to receive pass losing defender, overload zone defence.

Rules

Played with two teams of five Score by shooting through a hoop A side line ball is taken from the opposite team who touched it last Outside of the three point arc a basket is scores 3pts and inside scores 2pts

Once the offense has brought the ball across the mid-court line, they cannot go back across the line during possession Personal fouls include hitting, pushing and holding Fouling a shooter results in one, two or three free throws, worth 1pt each, depending on where and how they were fouled Players cannot travel with the ball or double dribble Players cannot hold the ball for longer than 5 seconds



Key Content and Terms to learn: Dribbling Chest Pass Set Shot Lay-up

Physical Education – Basketball questions

- 1. True or false, when dribbling over the half way line from defence you are allowed to dribble back into your defensive half?
- 2. Describe 'man-to-man' marking when defending?
- 3. What does the term 'zonal marking' mean?
- 4. Explain what a successful 'lay-up' shot would look like?
- 5. Identify on court the 3 point line?
- 6. What is the name given to the start of a basketball match?
- 7. Explain what a 'rebound' is?

8. How does a basketball match re-start following a foul on an attacking player when they are in the act of shooting?

Stretch and Challenge Task:

Draw a basketball court in your book and label it correctly with the lines that are the 3-point line and the free throw line.

Watch a video of a NBL game, identify key players and their positions and write what they did well.

Physical Education - Fitness

Key Skills: Components of Fitness/ Tests for Components of Fitness:- Muscular endurance- The ability to use muscles repeatedly for a long period. 1 Minute Sit-Up Test & 1 Minute Press-Up Test

Cardiovascular/Aerobic Endurance - Being able to exercise the whole body for a long period using oxygen and nutrients efficiently. Cooper 12-Minute Test; multi stage & Harvard Step Test

Muscular Strength- The amount of force that muscle produces in one contraction. Grip Dynamometer

Flexibility- The range of movement possible at a joint. Sit and Reach Test **Body Composition-** The measure of how much of your body is made up of fat-free mass, vital organs and fat. Body Mass Index

Agility- The ability to change direction at speed (quickly) without losing balance. Illinois Agility Run Test

Balance- The ability to maintain centre of mass over a base of support. Stork Balance Test

Co-ordination- The smooth flow of movement needed to perform a motor task efficiently and accurately using two or more body parts together.

Alternate Hand Wall Toss Test

Power- Speed X Strength Vertical Jump Test

Reaction time- How quickly someone can react to a stimulus. Ruler Drop Test **Speed-** How quickly an object or human moves from 'A' to 'B'. 30m/40mSprint Test

Main bones



Key Content and Terms to learn: Endurance; Aerobic; strength; Flexibility; Agility; Balance; Coordination; Power; Reaction Time; Speed and Body Composition.

- 1. What is a pulse raising activity and why is it important?
- 2. Name 2 lower and 2 upper body muscles.
- 3. What is the difference between Aerobic and Anaerobic exercise?
- 4. List 3 lower and 3 upper body circuit training stations.
- 5. How could we measure our heart rate and what units do we measure heart rate in?
- 6. What is the difference between dynamic and static stretching? Name 2 of each stretch.

Stretch and Challenge Task:

Link the Components of fitness to specific Sports/activities. Describe Training that could be undertaken to improve components of Fitness.

Physical Education – Football

Key skills:Controlling the ball – using different parts of the body – this could be the feet or thigh. Remember to cushion the ball.

Passing – there are 3 types of passes. Side foot pass, driven pass with the laces and a lofted pass. Using the side of the foot allows you to pass accurately over a short distance, a driven pass allows you to pass the ball on the floor, but a greater distance. Finally, a lofted pass allows you to lift the ball in the air over players and change direction. Remember to keep your standing foot next to the ball when you make the pass. Dribbling – dribbling allows you to move the ball quickly around the pitch using the inside and outside of your feet and keeping the ball close to your feet and your head up.

Turning with the ball and outwitting a defender – turning with the ball allows you to change direction using different techniques, such as dragging the ball back with the sole of your boot. Outwitting and opponent allows you to beat a defender using different techniques such as a step over.

Shooting – there are different types of shots that allows you to score goals. You instep can be used to control and place the ball into the goal. If you use your laces then this allows more power to be produced.

Heading – you can use an attacker header, a defensive header or a controlled header, which might be passing the ball back to someone with your head.

Attacking – keeping possession – making a number of passes allows your team to keep possession and advance up the field. Using the width is very important when attacking. It is important teams keep possession and play one and two touch to move the ball quickly. Also, 'switch' the play using a lofted pass. **Defending** – players are normally marked man to man, but can be marked zonal from corners.

Tackling techniques – tackling, jockeying and forcing the player onto their weaker foot.

Rules

Game is started by kicking the ball from the centre spot. The U12 game has 9 players – goalkeepers, defender, midfielders and attackers.

Referee and two assistants with officiate the game. If a ball goes over a touch line a throw in is taken (kick in on the Astroturf). If an attacker kicks over the goal line it is goal kick and if a defender kicks it over the goal line it is a corner.

To score the ball must cross the opposition's goal line. The offside rule also applies where an attacker is in front of all opposing defenders when the ball is kicked.



Key words Passing, dribbling, shooting, heading, attacking, defending, possession, width, depth, different formations

Physical Education – Football questions

- 1. Describe what a lofted pass is?
- 2. Describe how to control the ball effectively with the inside of your foot when receiving the ball off the ground?
- 3. What is a step over when dribbling 1v1?
- 4. Explain the outside hook turn?
- 5. What is a 'sweeper' when defending?
- 6. Where should a goalkeeper position themselves when their team is in the attacking third?
- 7. What is the difference between an central attacking midfielder (CAM) and a central defensive midfielder (CDM)?
- 8. Explain the positions in a 4-4-2 formation?

Stretch and Challenge Task:

- 1. What are the advantages of using man to man marking when defending?
- 2. Research the different types of formations (pictured) and positions.
- 3. Why is it important to use width in a game.

Physical Education – Netball

Key skills:

Passing and receiving – different types of passes include chest pass, bounce pass, shoulder pass and overhead pass.

Attacking – getting free from an opponent in order to receive the ball. Includes the skills of sprinting, dodging and changing direction.

Shooting – With one hand under the ball and the other steadying it at the side, keep your eyes on the hoop, bend your knees and push the ball with the fingers.

Defending – Marking your opposite player both with and without the ball.

Footwork – You must land with a 1-2 landing or with 2 feet. You must then not move the landing foot.

POSITIONS

Goal Shooter (GS) – Can only play in their attacking goal third. Marks the GK.

Goal Attack (GA) – Plays in the goal third and centre third. Marks the GD.

Wing Attack (WA) – Plays in the centre third and their teams attacking third. Marks the WD.

Centre (C) Only player to be able to play in all 3 thirds. ^{Ge} Marks C.

Wing Defence (WD) – Plays in centre third and their defending third. Marks the WA.

Goal Defence (GD) Plays in the centre third and their defending third.

Goal Keeper (GK) Can only lay in their defending goal third. Marks the GS

Rules

The game starts with a centre pass and the ball must be caught in the centre third. You must comply with the footwork rule e.g. a 1-2 landing. You only have 3 seconds to release the ball. When defending you must be 1 metre away from the player.

There must be no contact with an opposing player. Only GS and GA may score a goal. You must stay in the correct area of the court for

your position Teams take it in turns to take a centre pass. The ball must be touched in each third of the



Physical Education – Netball questions

- 1. Explain the footwork rule in detail and how you would use this to gain space?
- 2. How many seconds after catching the ball does a player have to pass or shoot the ball?
 - A. 3
 - B. 5
 - C. 10
- 3. How many players are on a team?
 - A. 5
 - B. 7
 - C. 11
- 4. When is a point scored in Netball?
- 5. Explain man to man marking
- 6. Write in your own words what a held ball is in detail
- 7. Name a type of marking used in Netball

Stretch and challenge task

- 1. Watch an international game of netball and try and spot if any of the players do not obey the footwork rule and if they contact any other players.
- 2. List the reasons why you might get a free pass.
- 3. List reasons why you might get a penalty pass.

Physical Education – Trampolining

Key skills:

Shapes – perform straight, tuck, straddle, pike in isolation





Straight bounce - legs together, point toes, make circle motion with arms, keep body in straight position, stay on the cross

Tuck - in the air tuck legs up to chest and arms come down to touch shins Straddle - split legs out to the side, point toes and attempt to touch toes Pike - lift legs out in front keep legs together, point toes and try to lean over to

touch toes



Back Drop – back to land on cross, arms in round position across chest, legs slightly bent, toes pointed in air

Front Drop – land on stomach (belly button to land on cross) arms and palms flat making diamond shape on bed, lift head to look at the end bed, legs lifting slightly off the trampoline ensuring they are together and toes are pointed.

Key words

Shapes, landings, twist, twist rotation, advanced rotations

Trampoline safety Setting up

Set mats and end beds out. Cover any holes between the beds with a mat. Ensure end beds are secure. Place mats on the floor around the trampoline. Have spotters around trampoline.

Getting on and off a trampoline

Use a chair to assist getting on/ off trampoline when necessary. If not using the chair use arm strength to push up and sit on the side of the trampoline. When getting off walk to the side of the trampoline, sit down slide feet to chair or floor.

General rules All jewellery/ piercings removed. Remove shoes. Socks or grip socks to be worn.

Never go underneath the trampoline. Stay on the cross when bouncing. Only one person allowed on the trampoline at a time. Use "kill the bed" to stop when you lose control. Only perform movements your teacher has taught you

Competition rules

Land on two feet. Perform compulsory and voluntary routine. Routines must include 10 skills. Wear plain white socks. Can use 3 bounces before starting routine. Out bounce can be used if necessary at the end of routine. Cannot repeat single moves. Twist

Perform 1/2 twist, full twist on trampoline with straight legs and arms (above head)



Half twist – stand on cross, perform half twist in the air. Start by facing one end bed and twist to face the opposite end bed. Arms out to the side to start, working towards placing them above head. Keep legs together an point toes

Full twist - stand on cross, perform full twist in the air. Start by facing one end bed and twist around to face the same end bed. Arms out to the side, working towards placing them above head. Keep legs together an point toes



Half twist to seat drop

Twist/ Rotation

Seat drop half-twist out



Swivel hips



Advanced Rotation

Hands and knees turnover onto the mat including a bounce

PE

Physical Education – Trampolining questions



Religious Education

Contents	ntents Creation and Covenant Key Words		venant Key Words
1.Autumn-1: Creation and Covenant: The Fall, Sin, Covenants and Commandments		The Fall	The story in Genesis 3 when humans commit the first sin
2.Autumn 1: Creation and Covenant: Conscience and Baptism3.Autumn 2: Prophesy and Promise: Prophets and Prophesies			and fall away from God's grace.
		Original Sin	The state of sin in which all humans are born, meaning
4.Autumn 2: F	Prophesy and Promise: John the Baptist and Amos		they inherit the consequences of Adam and Eve's first sin.
5.Spring 1: Fro	om Galilee to Jerusalem: Parable of the Lost Son	Sinai covenant	The covenant Moses made with God at Mount Sinai, when
6.Spring 1: F	rom Galliee to Jerusalem: Parable of the Sheep and		he was given the Ten Commandments as part of the Law.
7 Spring 1. Er	om Galilee to Jerusalem: Parable of the Sower	Decalogue	The ten 'words' or sayings of God that guided the Jewish
8 Questions	Sin Gamee to Jerusalem. I arable of the Sower	-	people to live as God wanted; also called the Ten
0.Questions			Commandments.
		Freedom	The power or right a person has to act, speak or think as
From Galilee	to Jerusalem Key Words		they want; being able to choose their own destiny,
Kingdom	A territory ruled by a king or queen.		independent of influence from anyone or anything else.
Moral sense	The moral meaning/lessons that are learned from the Bible.	Responsibility	Having control or power over something, which leads to a
of scripture	,		duty or moral obligation to behave correctly.
		Conscience	An intuitive knowledge of right and wrong, which leads to
Miracles	Extraordinary events that cannot be explained by science or		an instinctive desire to do right and to avoid wrong.
Windeles	the laws of nature, meaning only God could have made them	Prophecy and Promise Key Words	
	hannen	Prophet	A messenger of God.
		Priest	A religious leader who can perform religious rites.
Parables	Made up stories that Jesus told to teach a moral lesson.	King	A ruler of a kingdom.
Anointing	The sacrament administered to people who are very ill or	Messianic	To do with the time of the Messiah who was promised in
of the Sick	close to death.		the Old Testament.
Kingdom	A territory ruled by a king or queen.	Advent	The time of waiting and preparation leading up to Christmas
Moral sense	The moral meaning/lessons that are learned from the Bible.		
of scripture		Amos	A prophet in the Old Testament who lived during the C8th.
		Elijah	A prophet in the Old Testament who lived during the C9th.
Wiracles	Extraordinary events that cannot be explained by science or	John the Baptist	A preacher in the New Testament who prepared people for
	the laws of nature, meaning only God could have made them		the coming of Jesus. Also Jesus' cousin.
	happen.	Prophet	A messenger of God.
Parables	Made up stories that Jesus told to teach a moral lesson.	Priest	A religious leader who can perform religious rites
Anointing	The sacrament administered to people who are very ill or	King	A ruler of a kingdom
of the Sick	close to death.	King	A fuller of a kinguotti.

Autumn 1: Creation and Covenant: The Fall, Sin, Covenants and Commandments

The Fall and human sin The story of the Fall in Genesis 3 helps Christians to understand why there is sin in the world. The Fall Human Sin God gives humans the freedom to choose between right and wrong. In Christians believe a sin is an act against the will of God or when the story of the Fall, Adam and Eve use this free will to disobey God and someone goes against what their conscience tells them is right. commit sin. When Adam and Eve sin, they spoil their relationship with God, with Personal sin is the sin we have chosen to do ourselves. each other and with nature. Catholics believe all humans are marked with original sin from Adam Original sin is the state that all humans are born into, and Eve's sin. This means humans are more tempted to sin. inheriting the consequences of Adam and Eve's sin. Catholics believe that the story of the Fall is figurative: it uses metaphors to explain why we have sin in the world. The story of the Fall emphasises God's goodness: God shows people how to avoid sin and promises that evil will be overcome.

Covenants and God's Commandments

Covenants are agreements between two or more people. God has made covenants with humans:

•In the Sinai covenant, God gave the Ten Commandments to Moses. These commandments teach humans how to love God and others.

•Jesus taught humans that the greatest commandment is to love God with all your heart, soul and mind, and to love your neighbour as yourself.

•By keeping God's commands, Christians express their love for God and stay committed to the covenant.

Autumn 1: Creation and Covenant: Conscience and Ba

<u>Conscience</u>

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Catholics believe that conscience is God's law written on their heart, and that God guides people through their conscience to do good and avoid evil.

Catholics believe that:

•People have an intuitive knowledge of right and wrong because they are created *imago Dei*.

•They need to inform their conscience (for example by reading the Bible and praying) so that they grow in faith and keep God's word at the centre of their lives.

•They should always obey their conscience, but it must be well informed.







Baptism

- Baptism is a Sacrament of Initiation that welcomes a person into the Church.
- Baptism cleanses a person of their original sin and personal sins.
- The idea of water washing away sin is found in Numbers in the Old Testament.
- In the New Testament, John the Baptist baptised Jesus and others. Jesus then instructed his disciples to baptise all new Christians.
- Most Catholics are baptised as babies or young children (infant baptism).
- St Augustine taught that infant baptism is important to ensure that a person is cleansed of original sin and able to live a Christian life as soon as possible.
- Some Christians believe that baptism should only be celebrated by people who are old enough to decide to be baptised (believers' baptism).
- They say that Jesus himself was baptised as an adult, and that the promises made in baptism are personal and life-changing, so people should be old enough to understand how important they are.

Autumn 2: Prophesy and Promise: Prophets and Prophesies

What is a Prophet?

The word prophet defines someone specially chosen and called by God to tell his truth to others.

The Hebrew word for prophet is *Nebi*, which is derived from the verb 'act on,' "to bubble forth" like a fountain.
The English word for prophet comes from the Greek word *prophetes* which means to "speak for another, especially one who speaks for a god."

The Biblical prophets spoke the truth which came from God. Their unique vocation allowed them to authoritatively speak on God's behalf. They never spoke on their own authority, nor did they share their own opinions. They only shared their message as God instructed them. Their role was to make God's will known, as well as his holiness, and to instruct God's people to reject idolatry and sin. As well as reminding the people to live how God wanted, they also gave messages about how, hundreds of years in the future, God would send a Messiah (Jesus) to be the saviour of the world.

In the Bible we have the books of 4 **Major Prophets:** *Isaiah, Jeremiah, Ezekiel and Daniel* ...and 12 **Minor Prophets:** *Hosea, Joel, Amos, Obadiah, Jonah, Micah, Nahum, Habakkuk, Zephaniah, Haggai, Zechariah, and Malachi*

The prophecies we read in the Bible follow this pattern:

God chooses the person and makes of known to them.

•Message: Having chosen and called the

God gives them a special message rticular task they need to do.

will come true, even if it isn't in the prophet's own lifetime.

ans believe that when God calls someone to do something, he doesn't just leave them to it. God will always be with the person, helping and equipping them to carry out the task he has given them. This applies to us today, and it applied to the Old

Testament prophets too.

Autumn 2: Prophesy and Promise: John the Baptist and Amos

John the Baptist

John lived his life spreading the message that the Messiah would soon come. The following passage tells you about the end of John's life:

"People's hopes began to rise, and they began to wonder whether John perhaps might be the Messiah. So John said to all of them, "I baptize you with water, but someone is coming who is much greater than I am. I am not good enough even to untie his sandals. He will baptize you with the Holy Spirit and fire.

In many different ways John preached the Good News to the people and urged them to change their ways. But John reprimanded Governor Herod, because he had married Herodias, his brother's wife, and had done many other evil things. Then Herod did an even worse thing by putting John in prison." Luke 3

<u>Amos</u>

Amos lived around the time of the Prophets Isaiah and Hosea. He preached God's message to the people of northern Israel.

God gave Amos visions that were warnings for Israel. God gave him a vision of locusts. The locusts would devour everything in the land. Amos cried out to the Lord and asked Him to forgive and asked how God's people could survive after such devastation? God heard Amos and reversed this punishment He was going to send.

When God gave Amos a vision of fire that would burn up the land, Amos once again asked the Lord how His people could survive with such a devastation of fire. God again reversed His punishment and did not send a fire to devour the land.

God gave Amos a vision of a plumb line that showed that God's people did not measure up to His laws and commandments.

The final vision God gave to Amos was of a basket of ripened fruit that meant that God's people were ripe and ready to receive God's punishment for their sin.

Spring 1: From Galilee to Jerusalem: Parable of the Lost Sou

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Jesus continued: "There was a man who had two sons. The younger one said to his father, 'Father, give me my share of the estate.' So he divided his property between them. Not long after that, the younger son got together all he had, set off for a distant country and there squandered his wealth in wild living. After he had spent everything, there was a severe famine in that whole country, and he began to be in need. So he went and hired himself out to a citizen of that country, who sent him to his fields to feed pigs. He longed to fill his stomach with the pods that the pigs were eating, but no one gave him anything.

When he came to his senses, he said, 'How many of my father's hired servants have food to spare, and here I am starving to death! I will set out and go back to my father and say to him: Father, I have sinned against heaven and against you. I am no longer worthy to be called your son; make me like one of your hired servants.' So he got up and went to his father. But while he was still a long way off, his father saw him and was filled with compassion for him; he ran to his son, threw his arms around him and kissed him.

The son said to him, 'Father, I have sinned against heaven and against you. I am no longer worthy to be called your son.'

But the father said to his servants, 'Quick! Bring the best robe and put it on him. Put a ring on his finger and sandals on his feet. Bring the fattened calf and kill it. Let's have a feast and celebrate. For this son of mine was dead and is alive again; he was lost and is found.' So they began to celebrate.

Meanwhile, the older son was in the field. When he came near the house, he heard music and dancing. So he called one of the servants and asked him what was going on. 'Your brother has come,' he replied, 'and your father has killed the fattened calf because he has him back safe and sound.' The older brother became angry and refused to go in. So his father went out and pleaded with him. But he answered his father, 'Look! All these years I've been slaving for you and never disobeyed your orders. Yet you never gave me even a young goat so I could celebrate with my friends. But when this son of yours who has squandered your property with prostitutes comes home, you kill the fattened calf for him!'

'My son,' the father said, 'you are always with me, and everything I have is yours. But we had to celebrate and be glad, because this brother of yours was dead and is alive again; he was lost and is found.'"

Spring 1: From Galilee to Jerusalem: Parable of the Sheep and Goats

"When the Son of Man comes in his glory, and all the angels with him, he will sit on his glorious throne. All the nations will be gathered before him, and he will separate the people one from another as a shepherd separates the sheep from the goats. He will put the sheep on his right and the goats on his left.

Then the King will say to those on his right, 'Come, you who are blessed by my Father; take your inheritance, the kingdom prepared for you since the creation of the world. For I was hungry and you gave me something to eat, I was thirsty and you gave me something to drink, I was a stranger and you invited me in, I needed clothes and you clothed me, I was sick and you looked after me, I was in prison and you came to visit me.'

Then the righteous will answer him, 'Lord, when did we see you hungry and feed you, or thirsty and give you something to drink? When did we see you a stranger and invite you in, or needing clothes and clothe you? When did we see you sick or in prison and go to visit you?'

The King will reply, 'Truly I tell you, whatever you did for one of the least of these brothers and sisters of mine, you did for me.'

Then he will say to those on his left, 'Depart from me, you who are cursed, into the eternal fire prepared for the devil and his angels. For I was hungry and you gave me nothing to eat, I was thirsty and you gave me nothing to drink, I was a stranger and you did not invite me in, I needed clothes and you did not clothe me, I was sick and in prison and you did not look after me.'

They also will answer, 'Lord, when did we see you hungry or thirsty or a stranger or needing clothes or sick or in prison, and did not help you?'

He will reply, 'Truly I tell you, whatever you did not do for one of the least of these, you did not do for me.'

Then they will go away to eternal punishment, but the righteous to eternal life."

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Spring 1: From Galilee to Jerusalem: Parable of the Sower

Again Jesus began to teach by the lake. The crowd that gathered around him was so large that he got into a boat and sat in it out on the lake, while all the people were along the shore at the water's edge.

He taught them many things by parables, and in his teaching said: "Listen! A farmer went out to sow his seed. As he was scattering the seed, some fell along the path, and the birds came and ate it up. Some fell on rocky places, where it did not have much soil. It sprang up quickly, because the soil was shallow. But when the sun came up, the plants were scorched, and they withered because they had no root. Other seed fell among thorns, which grew up and choked the plants, so that they did not bear grain. Still other seed fell on good soil. It came up, grew and produced a crop, some multiplying thirty, some sixty, some a hundred times."



Then Jesus said, "Whoever has ears to hear, let them hear."



Autumn 1: Creation and Covenant Questions	Autumn 2: Prophesy and Promise Questions	Spring 1: From Galilee to Jerusalem Questions
1.What happened in the story of The Fall?	1.What is a prophet? 2.Where does the word prophet	1. Retell the Parable of the Lost Son in your own
2.What impact does The Fall have for Catholics today?	come from? 3.How many Major Prophets are	words. 2. What message was Jesus
3.What is original sin? 4.What is personal sin?	there? Name three. 4.How many Minor Prophets are	teaching in the Parable of the Lost Son?
5. Give three examples of personal sin.	there? Name three. 5. Explain the pattern that prophecies	3. Retell the Parable of the Sheep and Goats in your
6.Where do we get the 10 Commandments from?	in the Bible follow? 6 Who was John the Bantist?	own words. 4 What message was lesus
7.What does Jesus say the Greatest	7.Tell me one thing that happened	teaching in the Parable of the Sheen and Goats?
8.What is your conscience? 9.Why do people have an intuitive	8.Explain the four visions Amos	5. Retell the Parable of the Sower in your own
knowledge of right and wrong? 10.What does Baptism do?	9.How do you think it would feel to be a prophet?	6. What message was lesus
11.What did St. Augustine teach	10.How do you think you would react	teaching in the Parable of the Sower?
12.What is it called when you get baptised as an adult?	prophet today? Why? 11.Choose 5 key words for this topic.	7. For each Parable, design a symbol that represents
13.Choose 5 key words for this topic. Write the word and the definition	Write the word and the definition out, and then draw a symbol to help	the <i>meaning</i> of the Parable.
out, and then draw a symbol to help you remember the meaning of the	you remember the meaning of the word.	8. Why do you think that Jesus taught using
word.		Parables? 9. Choose 5 key words for
		this topic. Write the word

and the definition out.



	The most common ways of presenting data in science are:
	•A line graph should be used when the independent and
Independent variable: The variable that you change	dependent variables are continuous.
Dependent variable: The variable that is measured Contro	The temperature of water in a kettle as it bolts
variable: A variable that should be kept the same	water D
	•A bar chart should be used if the independent variable is
Prediction: What you think your results will show and why	discontinuous .
	Fixewrite Colour
Risk assessment : Identify hazards, the harms they can do	
and how you will minimize any risks in a practical	
investigation.	
	to be Over the It4
Method: Step-by-step instructions for how to carry out a	Once points have been plotted for a line graph, draw a line
practical investigation.	of best fit:
	✓ Does NOT have to go through 0,0
Results table: As the practical is carried out, write the	✓ The line should be drawn through as many points as
results in a table.	possible,
	✓ Equal numbers of points above and below the line.
Anomalies: result that is much higher or lower than the	✓ Anomalies should be ignored.
general pattern	✓ It may be straight or curved
Calculating a mean	
	o of Ca
1. Check for anomalies – circle them and ignore	
2.Add up the remaining results for that value	≥ [∞] / · · · · · · · · · · · · · · · · · ·
3.Divide the total by the number of results	
	Mass (g) Time (s)



Science – Term 1 – chemical reactions

Conservation of mass

During a chemical reaction, the atoms are rearranged. There is NO creation or destruction of matter, and so there is no creation or destruction of mass

Total mass of reactants = total mass of products

In chemical reactions where a gas is involved, it may appear that there has been a change in mass...

If a reactant is a gas, it will appear that the products has increased. An example of that is me \rightarrow metal oxide

If a product is a gas, it will appear that the mass of products has decreased. An example of that is me \rightarrow metal salt + hydrogen

, c		4	surroundings, the temperature increases
Incomplete combustion	Complete combustion Plenty of oxygen available Air hole open on a	Catalyst	A substance that increases the speed of a reaction, without being used up or changed itself
available Air hole closed on a	Bunsen burner More energy released	Combustion	When a fuel burns, an example of an exothermic reaction
Bunsen burner Less energy released The fuel burns incompletely	The fuel burns completely	Thermal decomp- osition	When a substance breaks down when heated, an example of an endothermic reaction Metal carbonate → metal oxide + carbon dioxide

Exothermic

Keyword



Meaning



Juucis		
ау	Reactants	Substances at the beginning of a chemical reaction (before arrow in a word equation)
mass of the tal + oxygen	Products	Substances at the beginning of a chemical reaction (after arrow in a word equation)
f the etal + acid	Endothermic	Chemical reaction that takes in energy from the surroundings, the temperature decreases
mbuction	Exothermic	Chemical reaction that releases energy to the surroundings, the temperature increases
gen	Catalyst	A substance that increases the speed of a reaction, without being used up or changed itself
er released	Combustion	When a fuel burns, an example of an exothermic reaction
S	Thermal decomp- osition	When a substance breaks down when heated, an example of an endothermic reaction Metal carbonate → metal oxide + carbon dioxide

Science – Ter	m 1
 Photosynthesis A chemical reaction IN PLANTS that produces glucose Needs carbon dioxide from the air, and water from the soil Also needs light energy (from Sun) and chlorophyll to absorb the light energy Happens in chloroplast light energy 	Structure of a leaf: Stomata gas exchange control stomata
Carbon + water oxygen dioxide glucose + Chlorophyll Uses of glucose in a plant - GLUCOSE IS A SUGAR The two main uses of glucose in a plant are – respiration (to release energy) and making starsh (for starses)	Respiration •A chemical reaction that releases energy from glucose •Happens in ALL living cells, ALL of the time – animals, plants and microbes •There are two types – aerobic and anaerobic
When the plant cannot make glucose (overnight, during the winter) it breaks starch back down to glucose, this can then be used in respiration (to release energy)	 Aerobic respiration •Releases MORE energy from glucose •Needs oxygen •Glucose + oxygen → carbon dioxide + water
Testing leaves for starch Covered part of leaf – no light energy – no photosynthesis – no glucose – no starch Green part of leaf – photosynthesis – glucose – starch White part of leaf – no chlorophyll – no photosynthesis – no glucose – no starch	 Anaerobic respiration - Happens when there is no oxygen Releases LESS energy from glucose, as it is incompletely broken down IN ANIMALS: Glucose → lactic acid Happens during strenuous exercise. The lactic acid produced makes the muscles ache. IN PLANTS & YEAST: Glucose → carbon dioxide + ethanol. In yeast, this is called fermentation.



Science – TE



- ALL waves transfer energy
- Light waves are an example of a transverse wave
- The oscillations (vibrations) are at right angles to the direction of energy transfer
- Water waves are another example of transverse waves

How we see



Light reflects off objects, and into our yes We see coloured Jse they absorb and f light

Keyword	Meaning	
Opaque	A substance that does not allow light through	
Transparent	A substance that allows light through	
Translucent	A substance that allows some light through	
Reflect	Light bounces off	
Absorb	Light is soaked up	
Transmit	Light goes through	
Filter	A substance that allows some wavelengths of light through, but not all	
Refract	Light changes speed and direction when moving from one medium to another	
Medium	a substance through which light travels	
Dispersion White light is split into the colours of the spectrum. A type of refraction that occurs in prisms.		
Types of reflect	tion	
mirrors other surfaces		
Specular	reflection Diffuse reflection	


Filters

•Filters transmit some colours, but absorb others

•This alters the appearance of objects, because the light reaching them is altered

A red filter on a blue object





• Violet light is refracted the most



Producing greenhouse gases:

Science Ter^{1) Methane}

Atmosphere – the gases that surround the planet. The function of the atmosphere is to protect us from harmful rays, provide gases that sustain life and warm the planet.

Gas	
Nitrogen	78
Oxygen	21
Others	1

0/ of other south and

Development of the atmosphere:

1. The Earth's surface was covered in volcanoes which released a lot of gases.

Cas

- 2. The early atmosphere began to form and was mostly carbon dioxide with no oxygen.
- 3. Water vapour condensed to form oceans.
- 4.Carbon dioxide gas dissolved in the oceans and formed sediments on the sea bed.
- 5. Green plants and algae evolved and used the carbon dioxide for photosynthesis.
- 6.Photosynthetic organisms released oxygen which built up in the atmosphere.

7. Animal life began to evolve.

Global warming - A gradual increase in the overall temperature of the earth's atmosphere because of the greenhouse effect caused by increased levels of greenhouse gases e.g. methane and carbon dioxide



2) Carbon dioxide Deforestation



Effects of global warming: 1)Loss of habitat and extinctions

2)Ice caps melting and sea levels rising

3)More droughts and floods

4)More extreme weather

Using landfill



Burning fossil fuels







Carbon dioxide is a greenhouse gas which affects the temperature of the Earth. Without it, the temperature on Earth would be too low to sustain life. However, as levels rise, the average air temperature is increasing too much.

Carbon cycle:

Carbon is a key part of all living organisms – it is a building block of fats, carbohydrates and proteins.

The natural carbon cycle moves carbon between the air, the ground and living things. Processes that take in carbon dioxide: •Photosynthesis of plants

Process that moves carbon between plants and other organisms

- Eating
- Decomposition

Processes that release carbon dioxide:

- Respiration by plants
- Respiration by animals and
- decomposers Burning fossil fuels





Science - Term 2 – Energy

Energy can be described as being in different 'stores'.

- It cannot be created or destroyed.
- It can be transferred from one store to another.

Store	Description
Kinetic	Any object that is moving
Gravitational potential	Any object that is above the ground
Chemical	Foods, fuels and batteries
Elastic potential	An object that is stretched
Thermal	Any object that is warm
Nuclear	An object made from radioactive material

Pathways

Energy can be transferred by:

- •mechanical working when a force is applied to move an object through a distance
- •electrical working when charge flows (electricity)
- •heating when energy is transferred between hotter and colder regions

•radiation – when energy is transferred as a wave, for example as light or sound

Energy transfers:

A force is applied to move an object, for example when a person lifts a book onto a high shelf:



Charges flow in a circuit, for example in a battery powered toy train:



Energy moves from the thermal store of a hotter object to the thermal store of a cooler object, for example when a handwarmer is used to warm up your hands.



Electricity can be generated using a number of energy resources. These can be divided into renewable and non-renewable resources.

Science

Fossil fuels: coal, oil and gas. Formed over millions of years, from the remains of plants and animals.



Dead plankton collects on the sea bed



Renewable = will not run out:





Non-renewable = will run out:



Coal



Nuclear



<u>Skills</u>

- 1. What is meant by the dependent variable?
- 2. Why do we have control variables?
- 3. Which type of variable is changed?
- 4. How do you deal with anomalies?
- 5. What is this the hazard symbol for?



- 6. Which flame do you light a Bunsen Burner on?
- What type of chart do you need for discontinuous data?
- 8. What is a prediction?
- 9. What sort of data is a line graph used for?

Bioenergetics

- 1. What is the purpose of photosynthesis?
- 2. What is the word equation for photosynthesis?
- 3. What are the uses of glucose in a plant?
- 4. How does carbon dioxide enter a plant?
- 5. Which part of a leaf carries out photosynthesis?

- 6. What are the two types of respiration?
- 7. What is the purpose of respiration?
- ^{8.} What is the word equation for aerobic
- respiration? What does anaerobic respiration produce in animals?
- 10. What does anaerobic mean?

Reactions

- 1. What is an exothermic reaction?
- 2. What is an endothermic reaction?
- 3. What is combustion?
- 4. What are the two types of combustion?
- 5. Which type releases more energy?
- 6. What does conservation of mass mean?
- 7. What is a thermal decomposition reaction?
- 8. What is a catalyst?
- 9. What is meant by the reactants in a reaction?
- 10. What is meant by the products of a reaction?

Science

Electricity

1. What is this the symbol for? n



- 2. What is the meaning of curre
- 3. What is the unit for current?
- 4. What is the meaning of potential difference?
- 5. What are the units for potential difference?
- 6. What is resistance?
- 7. What are the units for resistance?



<u>Light</u>

1. What is reflection?

- 2.What does opaque mean?3.What does transparent mean?4.What does translucent mean?5.What is refraction?6.What is white light?7.What does absorb mean? 8.
- 9. Which colours are absorbed by a red object? Which
 10. colours are absorbed by a blue object? What colours
 11. are combined to make cyan?

What colours of light will a magenta filter transmit?

Atmosphere

- 1. What gases are in the atmosphere?
- 2. Give two functions of the atmosphere?
- 3. Which two human activities produce methane?
- 4. Which two human activities produce carbon dioxide?
- 5. Give some effects of global warming
- 6. Which natural process carried out by plant removes

carbon dioxide from the atmosphere?

7. Which natural process carried out by all living things releases carbon dioxide to the atmosphere?

Science

Science

Energy

- 2. Which energy store will a hot object have?
- 3. Which energy store will a moving object have?
- 4. Which energy store is found in food, fuel and batteries?
- 5. Name the three types of fossil fuel
- 6. Name three renewable energy resources
- 7. Name three non-renewable energy resources
- 8. How do fossil fuels form?
- 9. What does non-renewable mean?
- 10. Which store of energy is found in objects that are stretched?
- 11. What are the four pathways by which energy can be transferred?

Spanish

es la una	y cinco
son las dos	y diez
son las tres	y veinte
son las cuatro	y veinticinco
son las cinco	y cuarto
son las seis	y media
son las siete	1.6
son las ocho	menos veinticinco
son las nueve	menos veinte
son las diez	menos diez
son las once	menos cinco
son las doce	menos cuarto



¿Qué hora es? What time is it?

Es la una.	It's one o'clock.	So
Son las dos.	lťstwo o'clock.	V
Es la una y cinco.	It's five past one.	So
Son las dos y diez.	lt's ten past two.	C
Son las tres y cuarto.	It's quarter past three.	So
Son las cuatro y veinte.	It's twenty past four.	So
Son las cinco y	It's twenty-five past five.	So
veinticinco.		έA
Son las seis y media.	It's half past six.	ala
Son las siete menos	It's twenty-five to seven.	ala
venticinco.		

Son las ocho menos veinte.	It's twenty to eight.
Son las nueve menos cuarto.	It's quarter to nine.
Son las diez menos diez.	It's ten to ten.
Son las once menos cinco.	It's five to eleven.
Son las doce.	It's twelve o'clock.
¿A qué hora?	At what time?
alauna	at one o'clock
a las dos	at two o'clock

		l					
	Describing	una casa - a house (F) un piso - a flat (M) "Ser" and "estar" both mean "to be" but we use them in different situations SER: • Descriptions ESTAR: • La casa es moderna La casa está en la costa The The house is modern is on the coast Es = it is Está = is is Son = they are Está = is is antiguo/a - old cerca de la playa - near the bonito/a - nice/pretty en el centro - in the contre reo/a - ugly en a montaña - in the mountains maravilloso/a - small outskirts		5	What you can do	Se puede(n) you can hacer actividades náuticas - do water sports hacer artes marciales - do martial arts hacer senderismo - go hiking ir al la bolera - go bowling ir al cine - go to the cinema ir de compras - go shopping ir de paseo en bicicleta - go on a bike ride ir a la playa - go to the beach ir al restaurante - go to the restaurant jugar al golf - play golf jugar al tenis - play tennis jugar al voleibol - play volleyball	
		Sigue todo recto - keep straight on Dobla a la derecha - turn right	pa	nis	h		ver la cathedral - see the cathedral visitar un castillo - visit a castle
		Dobla a la izquierda - turn left					
	ร	2 Toma la primera a la derecha - take the			tiene	s i	t has una terraza - a patio
	ction	first right		una cocina - a kitchen una chiminea - a fire		a - a kitchen una chiminea - a fireplace	
Dire		Toma la segunda a la izquierda - take the		e house	un co un cu	omed uarto	or - a dining room un jaccuzi - a hot tub o de baño - a bathroom un jardín - a garden
		second left		Ę	un de	ormit	torio - a bedroom una piscina - a pool
	Cruza la plaza - cross the square Está a			un so	alón -	a living room vistas al mar - view	
		la derecha - it's on the right Está a la			of th	e sec	1
		· · · · ·					

izquierda - it's on the left

Spanish

Gramática			
The verb ir (to go) is an important irregular verb.			
ir	togo		
voy	Igo		
vas	yougo		
va	he/she goes		
vamos	wego		
vais	you (plural) go		
van	they go		

Gramática

To say what you <u>are going to do</u>, use the present tense of the verb **ir (voy, vas, va** etc.) followed by a plus the <u>infinitive</u>. This is called the near future tense.

voy a salir con mis amigos I am going to go out with my friends vas a ver la televisión you are going to watchTV va a ir de paseo he/she is going to go for a walk vamos a jugar al voleibol we are going to play volleyball vais a chatear you (plural) are going to chat online van a hacer los deberes they are going to do their homework

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

Voy a salir con mis amigos.	l am going to go out with my friends.	Vamos a jugar al voleibol.	We are going to play volleyball.
Vas a ver la televisión.	You are going to watch TV.	Vais a chatear. Van a hacer los deberes.	You are going to chat. They are going to do
Va a ir de paseo.	He/She is going to go for a walk.		their homework.

¿Qué hay en tu ciudad? What is there in your town?

Hay	There is	una universidad	a university	
un castillo	a castle	En	In	
un centro comercial	a shopping centre	mi barrio	myneighbourhood	
un estadio	a stadium	miciudad	my town, my city	
un mercado	a market	mipueblo	my village, my town	
un museo	amuseum	No hay museo.	There isn't a museum	
un parque	a park	No hay nada.	There's nothing.	
una piscina	a swimming pool	unos museos	some museums	
una plaza	asquare	unastiendas	someshops	
un polideportivo	a sports centre	muchos museos	a lot of museums	
un restaurante	arestaurant	muchas tiendas	alotofshops	
unatienda	ashop			

say what there is in my town or village
 ask someone about their town or village
 use the correct words for 'a', 'some' and 'a lot of'





- say what I am going to do at the weekend
 ask someone what they are going to do
- use the near future tense

Spanish

Spanish – El español			
Question	Your answer		
How do you say at half past three?			
How od you ask the time?			
How do you tell some one it is quarter to four?			
Give 3 directions in Spanish			
Name 3 places in a town			
What is the difference between SER and ESTAR?			
¿Dónde vives?			
¿Cómo es tu casa?			
¿Cómo es tu pueblo?			
¿Qué se puede hacer en tu pueblo?			
¿Qué vas a hacer el fin de semana próximo?			
¿Qué vas a hacer este fin de semana?			
¿Qué haces en tu tiempo libre?			
¿Qué deportes te gustan?			