



Gloucester Academy

Unit 3

Year 7

Knowledge Organiser

Knowledge is power. Information is liberating.

Contents:

Homework Guidance:	2
Example page	3
Homework Timetable:	4
Maths Homework – Sparx Maths	5
Science Knowledge Organiser - Mondays	6
Spanish Knowledge Organiser - Tuesdays	9
Design and Technology Knowledge Organiser - Tuesdays	12
English Knowledge Organiser - Wednesdays	15
History Knowledge Organiser - Thursdays	18
Maths Knowledge Organiser - Thursdays	21
Geography Knowledge Organiser - Fridays	24
Food, Art, Drama, Music & RS Knowledge Organisers - Weekends	27
Character Education	30

Homework Guidance:

Knowledge Organiser homework is based on self-quizzing. It is expected that you complete one page of self-quizzing, every day. This should take around 30 minutes. You should not leave blank lines on the page, including in between pieces of information (if you are self-quizzing diagrams, you can use more than one line to copy the diagram into your practice book). The information you self-quiz should be numbered in your practice book with the same numbers used on the Subject Knowledge Organiser. Tutors will check your practice book. They will be looking for a full page of self-quizzing on the correct numbers of the Subject Knowledge Organiser, as well as for purple pen ticks/corrections and good presentation (including your H/W, Title and Date underlined with a ruler). Your writing needs to be neat and legible. If we feel that any of these elements are not up to standard, you will be issued with a same day detention.

A demonstrational video can be found here:

<https://www.gloucesteracademy.com/students/homework-and-revision-guidance/knowledge-organisers>

These are the steps you should follow to complete effective self-quizzing:

look □ repeatedly say aloud □ cover □ write □ check

1. **Identify** the Subject Knowledge Organiser segment for the day from your homework timetable.
2. **Open up your practice book** and on the top line, write 'H/W' in the margin. On the other side of the margin line, write the Title (the subject you are completing) the Week (which week you are completing). Write the Date on the right hand side. Underline everything with a ruler.
3. **Place your Subject Knowledge Organiser segment in front of you.** Start with the first numbered piece of information within the weekly segment. Read and memorise the information - we recommend saying it aloud. Repeat the process several times, until you are confident to write the knowledge point down.
4. **Close your Subject Knowledge Organiser** or cover up the piece of information, and try to recall the knowledge. On the line directly beneath your H/W, Title and Date, write the correct number from the Subject Knowledge Organiser and the piece of information from memory, ensuring there are no blank lines.
5. **Check it and correct any mistakes.** Open up your Subject Knowledge Organiser and look at the piece of information – using a purple pen tick the piece of information in your practice book if you have recalled it correctly (word for word, correctly spelled). If you have incorrectly recalled or missed any part of the information, use your purple pen to put a cross next to that knowledge point.
6. **If you recalled the piece of information incorrectly,** go back to step 3 and **in purple pen,** repeat the process again for the same piece of information (cover up previous attempts in your practice book as well as the piece of information in your Subject Knowledge Organiser). When you have recalled the information correctly, tick the attempt and move on to the next piece of information within the weekly segment.
7. **Repeat the steps above** until you have recalled and written down all pieces of information within the weekly segment. If this has not filled one full page of your practice book, go back to the first piece of information within the weekly segment and repeat the process again, until you have filled an entire page.

Example page

H/W Science week 3

21 September 2020

1. A cell. This is the simplest unit of a living organism. ✓
2. Cell membrane. This is a ~~partaly~~ partially permeable barrier and controls what goes in and out of the cell. X
2. Cell membrane. This is a partially permeable barrier and controls what goes in and out of the cell. ✓
3. Cytoplasm. This is a jelly-like substance in cells where chemical reactions occur. ✓
4. Nucleus. This contains DNA and controls the cell. ✓
5. Mitochondion. A sub-cellular structure where respiration takes place to make energy. X
5. Mitochondrion. A sub-cellular structure where respiration takes place to make energy. ✓
6. Hypothesis. An idea that explains how or why something happens. ✓
7. Prediction. A statement suggesting what you think will happen in an experiment / investigation.
8. Control variable. The variable that must be kept constant so that it doesn't affect the outcome of the investigation. (variable = something that can change in an experiment). ✓
9. Independent variable. The variable that is changed in an experiment / investigation. (variable = something that can change in an experiment) ✓
10. Dependent variable. The variable that is recorded and measured for each change of the independent variable. (variable = something that can change in an experiment) X
10. Dependent variable. The variable that is measured

Homework Timetable:

You are expected to complete at least 30 minutes of homework in your practice book every day. You are expected to complete Sparx Maths homework which we recommend you split into three sessions, per week. Each of these are expected to take up to 1 hour.

	Monday	Tuesday	Wednesday	Thursday	Friday	Weekend
Knowledge Organiser in your practice book 30 minutes	Science	MFL and DT	English	History & Maths	Geography	Food/Art/ Drama/R.S/Music
Online session 30 minutes	Sparx Maths		Sparx Maths		Sparx Maths	

Self-tracker:

Week	Homework	Monday	Tuesday	Wednesday	Thursday	Friday	Weekend
1 w/c 17/04/23	KO						
	Online						
2 w/c 24/04/23	KO						
	Online						
3 w/c 01/05/23	KO						
	Online						
4 w/c 08/05/23	KO						
	Online						
5 w/c 15/05/23	KO						
	Online						
6 w/c 22/05/23	KO						
	Online						
7 w/c 05/06/23	KO						
	Online						
8 w/c 12/06/23	KO						
	Online						
9 w/c 19/06/23	KO						
	Online						
10 w/c 26/06/23	KO						
	Online						

Maths Homework – Sparx Maths

You will get one [sparx.co.uk](https://www.sparx.co.uk) assignment to complete each week, which will be set on a Wednesday and will be due the following Wednesday. Your homework is made up of personalised questions that will help you develop your learning in maths. This will include topics you have covered within the past week and some older material for you to revise. The homework may include multiple tasks. We suggest you split it into three manageable chunks and complete this every Wednesday, Friday and Monday.

You should be able to complete all of the questions without too much support, however, if there is a question which you are finding hard to complete, we recommend you watch the video. If you are still unable to solve the question, move on to the next one and talk to your teacher before it's due.

You will need to show your maths teacher your Sparx booklet so your teacher can see your workings. Your teacher will be looking to see that you have:

- Written down the bookwork code
- Written down your workings and answers
- Marked your own work in a purple pen, made corrections, and written down your score at the end.

Don't forget every lunchtime there is homework support!

For more information and guidance please go to:

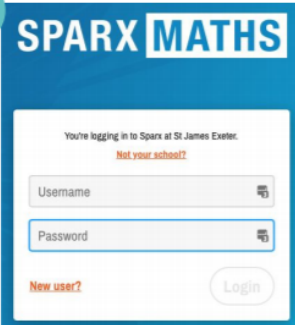
<https://www.gloucesteracademy.com/students/homework-and-revision-guidance/sparx-maths>

How to log in to Sparx - new students


1. Go to [sparx.co.uk](https://www.sparx.co.uk), click **Log in** and choose **Student login**
2. Start typing the name of your school in the **Select Your School** box, making sure you **click on the correct school name** when it comes up. Click **Continue**.
3. Click the **New User?** button at the bottom of the box.
4. Fill in your **Name and Date of Birth**.
5. Click **Submit**. You will be given a username and password - **you must remember it!**
6. Click **Finish**. You will be asked to re-enter your username and password. This is to help you remember it.

Now you can log in with your **Username** and **Password** :)

3



4



sparx

Science Knowledge Organiser - Mondays

Week 1	Piece of Information	Answer
1	Herbivore	An animal that only eats plants, known as the primary consumer.
2	Omnivore	An animal that eats both plants and meat
3	Carnivore	An animal that only eats meat
4	Producer	An organism that uses light energy to produce food
5	Scatter Graph	A graph that displays information which changes over time.
6	Mean	The sum of all values divided by the total number of values.
7	Dependent Variable	A factor that we measure.
8	Independent Variable	A factor that we change.
9	Control Variable	A factor that we keep the same.
10	Periodic Table	An arrangement of elements in the order of their atomic numbers.

Week 2	Piece of Information	Answer
1	Prey	Animals that are hunted and killed for food
2	Ecosystem	Consisting of organisms and the physical environment in which they live
3	Predator	An animal that lives by hunting and consuming other animals
4	Consumer	All animals above a producer
5	Food Chain	A sequence of organisms that shows the feeding relationships between producers and consumers.
6	Food Web	Multiple linked food chains within a ecosystem.
7	System	An object or group of objects that interact
8	Soluble	The substance will dissolve to make a solution
9	Enzymes	Biological catalysts which speed up the rate of reaction.
10	Solid, Liquid, Gas	Three states of matter.

Week 3	Piece of Information	Answer
1	Risk assessment	The identification and evaluation of potential harm.
2	Variable	Something that can be changed, measured or controlled
3	Element	A pure substance consisting of only one type of atom.
4	Compound	A pure substance made from two or more elements chemically joined together.
5	Mixture	When two or more elements or compounds are mixed together but can be separated.
6	Herbivore	An animal that only eats plants, known as the primary consumer.
7	Omnivore	An animal that eats both plants and meat
8	Carnivore	An animal that only eats meat
9	Producer	An organism that uses light energy to produce food
10	Scatter Graph	A graph that displays information which changes over time.

Week 4	Piece of Information	Answer
1	Joule	The unit of energy
2	Work	The transfer of energy when a force moves an object in the direction of the force
3	Non-Renewable	A resource that is of limited supply.
4	Renewable	A resource that will quickly replenish.
5	Apparatus	The equipment used in a practical/investigation.
6	Mean	The sum of all values divided by the total number of values.
7	Dependent Variable	A factor that we measure.
8	Independent Variable	A factor that we change.
9	Control Variable	A factor that we keep the same.
10	Periodic Table	An arrangement of elements in the order of their atomic numbers.

Week 5	Piece of Information	Answer
1	Friction	A force between two surfaces that are sliding
2	Electrostatic	A non contact force between charged objects
3	Magnetic Field	The area around a magnet that has a magnetic force
4	Mean	Total of all the values divided by the number of values.
5	Reproducible	Similar results are obtained by different investigators with different equipment.
6	Prey	Animals that are hunted and killed for food
7	Ecosystem	Consisting of organisms and the physical environment in which they live
8	Predator	An animal that lives by hunting and consuming other animals
9	Consumer	All animals above a producer
10	Food Chain	A sequence of organisms that shows the feeding relationships between producers and consumers.

Week 6	Piece of Information	Answer
1	Scalar	A quantity with magnitude only e.g. speed or time
2	Vector	A quantity with a magnitude and direction e.g. velocity or force
3	Hypothesis	A prediction made with evidence at the beginning of a scientific investigation.
4	Anomalous Result	Does not fit the pattern so excluded when calculating the mean.
5	Repeatable	When after repetition, under the same conditions by the same investigator, gives similar results.
6	Food Web	Multiple linked food chains within an ecosystem.
7	System	An object or group of objects that interact
8	Soluble	The substance will dissolve to make a solution
9	Enzymes	Biological catalysts which speed up the rate of reaction.
10	Solid, Liquid, Gas	Three states of matter.

Week 7	Piece of Information	Answer
1	Biotic	Living factors affecting a community.
2	Abiotic	Non-living factors affecting a community E.g. light intensity, temperature, soil pH).
3	Method	A sequence of instructions detailing how to complete an experiment/investigation which lead to valid results and are repeatable.
4	Community	A group of interdependent populations of organisms all interacting with each other.
5	Interdependence	All organisms in a community rely on one another – for food, shelter, pollination, seed dispersal, nutrient recycling etc.
6	Risk assessment	The identification and evaluation of potential harm.
7	Variable	Something that can be changed, measured or controlled
8	Element	A pure substance consisting of only one type of atom.
9	Compound	A pure substance made from two or more elements chemically joined together.
10	Mixture	When two or more elements or compounds are mixed together but can be separated.

Week 8	Piece of Information	Answer
1	Insoluble	A substance that will not dissolve in a solvent to produce a solution.
2	Solution	Formed when a solute dissolves in a solvent.
3	Metal oxide	Formed when a metal reacts with oxygen.
4	Energy transfer	Energy can be transferred usefully between stores.
5	National grid	Supplied by power stations to provide the UK's electricity.
6	Joule	The unit of energy
7	Work	The transfer of energy when a force moves an object in the direction of the force
8	Non-Renewable	A resource that is of limited supply.
9	Renewable	A resource that will quickly replenish.
10	Apparatus	The equipment used in a practical/investigation.

Week 9	Piece of Information	Answer
1	Friction	A force between two surfaces that are sliding
2	Electrostatic	A non contact force between charged objects
3	Magnetic Field	The area around a magnet that has a magnetic force
4	Mean	Total of all the values divided by the number of values.
5	Reproducible	Similar results are obtained by different investigators with different equipment.
6	Scalar	A quantity with magnitude only e.g. speed or time
7	Vector	A quantity with a magnitude and direction e.g. velocity or force
8	Hypothesis	A prediction made with evidence at the beginning of a scientific investigation.
9	Anomalous Result	Does not fit the pattern so excluded when calculating the mean.
10	Repeatable	When after repetition, under the same conditions by the same investigator, gives similar results.

Week 10	Piece of Information	Answer
1	Biotic	Living factors affecting a community.
2	Abiotic	Non-living factors affecting a community E.g. light intensity, temperature, soil pH).
3	Method	A sequence of instructions detailing how to complete an experiment/investigation which lead to valid results and are repeatable.
4	Community	A group of interdependent populations of organisms all interacting with each other.
5	Interdependence	All organisms in a community rely on one another – for food, shelter, pollination, seed dispersal, nutrient recycling etc.
6	Insoluble	A substance that will not dissolve in a solvent to produce a solution.
7	Solution	Formed when a solute dissolves in a solvent.
8	Metal oxide	Formed when a metal reacts with oxygen.
9	Energy transfer	Energy can be transferred usefully between stores.
10	National grid	Supplied by power stations to provide the UK's electricity.

Spanish Knowledge Organiser - Tuesdays

Week 1	Piece of Information	Answer
1	mi colegio	my school
2	se llama Gloucester Academy	is called Gloucester Academy
3	y es un instituto <u>mixto</u>	and it's a <u>mixed</u> school
4	me gusta mucho mi insti	I really like my school
5	porque tengo muchos amigos	because I have lots of friends
6	estudio matemáticas y	I study maths and
7	estudio geografía también	I study geography also
8	mi <u>asignatura</u> preferida	my favourite <u>subject</u>
9	es el español	is Spanish
10	porque es divertido	because it's fun

Week 2	Piece of Information	Answer
1	es verdaderamente útil	it is really useful
2	sin embargo	however
3	no me gustan matemáticas	I don't like maths
4	dado que	because (given that)
5	no se me da bien	I am not good at it
6	en mi colegio hay	in my school there is
7	un comedor grande	a big canteen
8	y un salón de actos moderno	and a modern assembly hall

9	que fue un poco aburrido	which was a bit boring
10	y bebí agua	and I drank water

Week 3	Piece of Information	Answer
1	voy a estudiar el inglés	I am going to study English
2	porque va a ser	because it is going to be
3	bastante interesante	quite interesting
4	la hora del almuerzo	lunchtime
5	durante el recreo	during break
6	my school	mi colegio
7	is called Gloucester Academy	se llama Gloucester Academy
8	and it's a <u>mixed</u> school	y es un instituto <u>mixto</u>
9	I really like my school	me gusta mucho mi insti
10	because I have lots of friends	porque tengo muchos amigos

Week 4	Piece of Information	Answer
1	el año <u>pasado</u>	<u>last</u> year
2	a la escuela <u>primaria</u>	at <u>primary</u> school
3	estudié el dibujo	I studied art
4	también los profesores	also the teachers
5	son muy simpáticos	are very kind
6	I study maths and	estudio matemáticas y
7	I study geography also	estudio geografía también
8	my favourite <u>subject</u>	mi <u>asignatura</u> preferida
9	is Spanish	es el español
10	because it's fun	porque es divertido

Week 5	Piece of Information	Answer
1	en mi colegio	in my school
2	se debe llevar	we (you) have to wear
3	<u>uniforme</u> escolar	school <u>uniform</u>
4	llevo	I wear
5	a <u>white</u> shirt	una camisa <u>blanca</u>
6	it is really useful	es verdaderamente útil
7	however	sin embargo
8	I don't like maths	no me gustan matemáticas
9	because (given that)	dado que
10	I am not <u>good</u> at it	no se me da bien

Week 6	Piece of Information	Answer
1	una corbata <u>negra</u>	a <u>black</u> tie
2	y unos pantalones <u>grises</u>	and some <u>grey</u> trousers
3	también llevo	also I wear

4	pienso que el uniforme	I think that (the) uniform
5	is a good idea	es una buena idea
6	in my school there is	en mi colegio hay
7	a big canteen	un comedor grande
8	and a modern assembly hall	y un salón de actos moderno
9	which was a bit boring	que fue un poco aburrido
10	and I drank water	y bebí agua

Week 7	Piece of Information	Answer
1	bebo coca	I drink cola
2	que me encanta	which I love
3	pero <u>no es</u> bueno	but it <u>isn't</u> good
4	para la salud	for my (the) health
5	a veces	sometimes
6	I am going to study English	voy a estudiar el inglés
7	because it is going to be	porque va a ser
8	quite interesting	bastante interesante
9	lunchtime	la hora del almuerzo
10	during break	durante el recreo

Week 8	Piece of Information	Answer
1	como en el comedor	I eat in the canteen
2	con mis compañeros	with my school friends
3	generalmente	generally
4	almuerzo	I eat (for lunch)
5	un bocadillo	a sandwich
6	<u>last</u> year	el año <u>pasado</u>
7	at <u>primary</u> school	a la escuela <u>primaria</u>
8	I studied art	estudié el dibujo
9	also the teachers	también los profesores
10	are very kind	son muy simpáticos

Week 9	Piece of Information	Answer
1	in my school	en mi colegio
2	we (you) have to wear	se debe llevar
3	school <u>uniform</u>	<u>uniforme</u> escolar
4	I wear	llevo
5	una camisa <u>blanca</u>	a <u>white</u> shirt
6	a <u>black</u> tie	una corbata <u>negra</u>
7	and some <u>grey</u> trousers	y unos pantalones <u>grises</u>
8	also I wear	también llevo
9	I think that (the) uniform	pienso que el uniforme
10	es una buena idea	is a good idea

Week 10	Piece of Information	Answer
1	I drink cola (coke)	bebo coca
2	which I love	que me encanta
3	but it isn't good	pero no es bueno
4	for my (the) health	para la salud
5	sometimes	a veces
6	I eat in the canteen	como en el comedor
7	with my school friends	con mis compañeros
8	generally	generalmente
9	I eat (for lunch)	almuerzo
10	a sandwich	un bocadillo

Design and Technology Knowledge Organiser - Tuesdays

Week 1	Piece of Information	Answer
1	Data sheets	Information sources which display a range of typical engineering information, such as feed rates for cutting various materials, tapping drill sizes, thread details and finishing detail, etc.
2	Detail views	These are views that focus on a particular part of an engineering drawing, often used to enlarge complex parts of a design or engineering drawing.
3	Engineering Drawing	For the purpose of this qualification, engineering drawings are the drawings that are issued to learners in the Unit 1 controlled assessment brief that will enable them to accurately manufacture the required product from the given brief and specification. Learners are also required to produce their own engineering drawings as a part of their response for the controlled assessment brief for Unit 2.
4	Isometric drawing	A measured three-dimensional view or representation of a part or product. They are constructed using 30° (or 30°/60°) grids.
5	Job sheets	Specific instructions that explain the task/job to be done. These are completed after the work is complete and the sheets are updated based on the work undertaken.
6	Manufacturing specification	Contains all the information that is needed to make the product. It describes the stages of manufacture and the materials needed, using flowcharts, diagrams, notes and samples.
7	Material stock sizes	These are the sizes that materials are generally sold in from a supplier. They form the starting point of where components or parts are manufactured from in the workshop
8	Orthographic projection	This is the standard set of views used in an engineering drawing to display sizes and details about a product. Typically, views would include a front, end (side, sometimes left and right) and a plan (top) elevation (or views).
9	Planning documentation	A series of documents provided to an engineer to assist in the designing or manufacturing of a product.
10	Risk assessment	A document that focuses on the potential for accidents and harm and puts into place mitigations to prevent accidents and unsafe working practices, based on the severity of risk.

Week 2	Piece of Information	Answer
1	Sectional view	These are detailed drawings showing a 'cut through' of a product or

		component. It allows details of items such as gaskets, seals and springs to be clearly shown.
2	Third angle projection	These are the standard conventions used in laying out an engineering drawing (see orthographic drawing) as laid out under British standards (BS 8888).
3	Title block	Should be present on all engineering drawings and should give additional information about what is on the sheet. They include details such as plan number, number of sheets, sheet title, dates and names of who created and checked the sheet and when, in what scale the drawing is, tolerances, etc. Title blocks can also give information on materials, finishes, etc.
4	Tolerance	This is the maximum and minimum (+/-) allowance that a manufactured part/component can be off from the stated size on a drawing
5	Anthropometrics	Designers and Engineers use anthropometric data to help make sure a product will be comfortable for the user.
6	BS8888 Conventions	BS 8888 is the UK's national framework standard for engineering drawings
7	CAD Visuals	These are printed or digital outcomes which show a pictorial representation of the final engineering solution.
8	Datum Points	Any reference point of known or assumed coordinates from which calculation or measurements may be taken.
9	Ergonomics	A branch of science that aims to learn about human abilities and limitations, and then apply this learning to improve people's interaction with products, systems and environments.
10	Isometric View	A measured three-dimensional view or representation of a part or product. They are constructed using 30° (or 30°/60°) grids.

Week 3	Piece of Information	Answer
1	Manufacturing specification	A set of instructions which list key manufacturing steps or information such as tolerances, finishes etc.
2	OHM's law	A formula used to calculate the relationship between voltage, current and resistance in an electrical circuit.
3	Operational parameters	Parameters that are applied during manufacture which may then be fed back about operations during the production stages to improve quality or productivity.
4	Orthographic View	This is the standard set of views used in an engineering drawing to display sizes and details about a product. Typically, views would include a front, end (side, sometimes left and right) and a plan (top) elevation (or views).
5	Testing	This can include visual models of proposed modifications to the design.
6	Data sheets	Information sources which display a range of typical engineering information, such as feed rates for cutting various materials, tapping drill sizes, thread details and finishing detail, etc.

7	Detail views	These are views that focus on a particular part of an engineering drawing, often used to enlarge complex parts of a design or engineering drawing.
8	Engineering Drawing	For the purpose of this qualification, engineering drawings are the drawings that are issued to learners in the Unit 1 controlled assessment brief that will enable them to accurately manufacture the required product from the given brief and specification. Learners are also required to produce their own engineering drawings as a part of their response for the controlled assessment brief for Unit 2.
9	Isometric drawing	A measured three-dimensional view or representation of a part or product. They are constructed using 30° (or 30°/60°) grids.
10	Job sheets	Specific instructions that explain the task/job to be done. These are completed after the work is complete and the sheets are updated based on the work undertaken.

Week 4	Piece of Information	Answer
1	Destructive and non-destructive testing	A range of methods used to test individual parts or complete products to determine performance or material behaviour.
2	Electronic Design	The design and development of electronic systems such as printed circuit boards (PCB's) and integrated circuits in products etc.
3	Mechanical Advantage	The advantage gained by using a mechanism in transmitting force such as a cantilever to raise heavy objects.
4	Mechanical Design	The design of components and systems of a mechanical nature such as machines, products and instruments.
5	Smart Technologies	Materials that have properties which allow them to change reversibly depending on their environment or physical stimulus.
6	Manufacturing specification	Contains all the information that is needed to make the product. It describes the stages of manufacture and the materials needed, using flowcharts, diagrams, notes and samples.
7	Material stock sizes	These are the sizes that materials are generally sold in from a supplier. They form the starting point of where components or parts are manufactured from in the workshop
8	Orthographic projection	This is the standard set of views used in an engineering drawing to display sizes and details about a product. Typically, views would include a front, end (side, sometimes left and right) and a plan (top) elevation (or views).
9	Planning documentation	A series of documents provided to an engineer to assist in the designing or manufacturing of a product.
10	Risk assessment	A document that focuses on the potential for accidents and harm and puts into place mitigations to prevent accidents and unsafe working practices, based on the severity of risk.

Week 5	Piece of Information	Answer
1	Structural Design	The design of structural elements in buildings and products. Structural design focuses on strength and rigidity and involves the use of science and mathematics to calculate outcomes.
2	Sustainable Materials	Materials which have a relatively positive impact on both communities and the environment that are used to build products, services and buildings.
3	Velocity Ratio	A ratio of the distance that the effort must move and the distance that the load moves.
4	Tensile strength	The ability of a material to resist elongating or breaking when stretched. Compressive strength –The capacity of a material to withstand loads without deforming.
5	Hardness	The ability of a material to resist deforming when impacted
6	Sectional view	These are detailed drawings showing a 'cut through' of a product or component. It allows details of items such as gaskets, seals and springs to be clearly shown.
7	Third angle projection	These are the standard conventions used in laying out an engineering drawing (see orthographic drawing) as laid out under British standards (BS 8888).
8	Title block	Should be present on all engineering drawings and should give additional information about what is on the sheet. They include details such as plan number, number of sheets, sheet title, dates and names of who created and checked the sheet and when, in what scale the drawing is, tolerances, etc. Title blocks can also give information on materials, finishes, etc.
9	Tolerance	This is the maximum and minimum (+/-) allowance that a manufactured part/component can be off from the stated size on a drawing
10	Anthropometrics	Designers and Engineers use anthropometric data to help make sure a product will be comfortable for the user.

Week 6	Piece of Information	Answer
1	Design summary	A brief statement or account of the main points of something
2	perspective	The art of representing three-dimensional objects on a two-dimensional surface to give the right impression of their height, width, depth, and position in relation to each other.
3	Accuracy	All components need to be accurate in manufacture as all components need to fit together.
4	annotation	labelling and explaining a drawing
5	injection moulding	Injection moulding is a manufacturing process for producing parts by injecting molten material into a mould, or mold
6	BS8888 Conventions	BS 8888 is the UK's national framework standard for engineering drawings
7	CAD Visuals	These are printed or digital outcomes which show a pictorial representation

		of the final engineering solution.
8	Datum Points	Any reference point of known or assumed coordinates from which calculation or measurements may be taken.
9	Ergonomics	A branch of science that aims to learn about human abilities and limitations, and then apply this learning to improve people's interaction with products, systems and environments.
10	Isometric View	A measured three-dimensional view or representation of a part or product. They are constructed using 30° (or 30°/60°) grids.

Week 7	Piece of Information	Answer
1	error proofing	Error Proofing is ensuring that the product cannot be assembled or used in an incorrect way
2	co-operative business	A business that is owned and managed by its workers
3	crowdfunding	A way of raising money from large numbers of people to launch a new design is called?
4	isometric	The drawing technique uses vertical lines and 30 degree angles
5	Just in Time (JIT) manufacture	The production technique manufactures parts just before they are needed
6	Manufacturing specification	A set of instructions which list key manufacturing steps or information such as tolerances, finishes etc.
7	OHM's law	A formula used to calculate the relationship between voltage, current and resistance in an electrical circuit.
8	Operational parameters	Parameters that are applied during manufacture which may then be fed back about operations during the production stages to improve quality or productivity.
9	Orthographic View	This is the standard set of views used in an engineering drawing to display sizes and details about a product. Typically, views would include a front, end (side, sometimes left and right) and a plan (top) elevation (or views).
10	Testing	This can include visual models of proposed modifications to the design.

Week 8	Piece of Information	Answer
1	presentation	the word used to describe the quality of showing and demonstrating your work
2	Thermoplastic –	plastics that soften when heated, harden when cooled, and then can be heated and softened many times
3	Thermosets –	plastics that, after being heated and softened during manufacture, cannot be changed or softened by heating again

4	Strip Heater	This is an electrically operated heating element that allows the user to heat small areas of thermo plastics for reshaping
5	Specification	A specification often refers to a set of documented requirements to be satisfied by a material, design, product, or service.
6	Data sheets	Information sources which display a range of typical engineering information, such as feed rates for cutting various materials, tapping drill sizes, thread details and finishing detail, etc.
7	Detail views	These are views that focus on a particular part of an engineering drawing, often used to enlarge complex parts of a design or engineering drawing.
8	Engineering Drawing	For the purpose of this qualification, engineering drawings are the drawings that are issued to learners in the Unit 1 controlled assessment brief that will enable them to accurately manufacture the required product from the given brief and specification. Learners are also required to produce their own engineering drawings as a part of their response for the controlled assessment brief for Unit 2.
9	Isometric drawing	A measured three-dimensional view or representation of a part or product. They are constructed using 30° (or 30°/60°) grids.
10	Job sheets	Specific instructions that explain the task/job to be done. These are completed after the work is complete and the sheets are updated based on the work undertaken.

Week 9	Piece of Information	Answer
1	Tenon saw	A small saw with a strong brass or steel back for precise work, used to cut wood.
2	File	A file is a tool used to remove fine amounts of material from a workpiece. It is common in woodworking, metalworking,
3	Steel rule	A measuring tool where the numbers start at the end of the tool.
4	Vice	A clamp attached to the workbench used to hold materials in place.
5	Work bench	a flat table or surface at which carpentry or other mechanical or practical work is done.
6	Destructive and non-destructive testing	A range of methods used to test individual parts or complete products to determine performance or material behaviour.
7	Electronic Design	The design and development of electronic systems such as printed circuit boards (PCB's) and integrated circuits in products etc.
8	Mechanical Advantage	The advantage gained by using a mechanism in transmitting force such as a cantilever to raise heavy objects.
9	Mechanical Design	The design of components and systems of a mechanical nature such as machines, products and instruments.
10	Smart Technologies	Materials that have properties which allow them to change reversibly

		depending on their environment or physical stimulus.
--	--	--

Week 10	Piece of Information	Answer
1	solution	a means of solving a problem or dealing with a difficult situation.
2	progression	the process of developing or moving gradually towards a more advanced state.
3	technique	a way of carrying out a particular task, especially the execution or performance of an artistic work or a scientific procedure.
4	component	a part or element of a larger whole, especially a part of a machine or vehicle
5	disassembly	take (something) to pieces.
6	Manufacturing specification	Contains all the information that is needed to make the product. It describes the stages of manufacture and the materials needed, using flowcharts, diagrams, notes and samples.
7	Material stock sizes	These are the sizes that materials are generally sold in from a supplier. They form the starting point of where components or parts are manufactured from in the workshop
8	Orthographic projection	This is the standard set of views used in an engineering drawing to display sizes and details about a product. Typically, views would include a front, end (side, sometimes left and right) and a plan (top) elevation (or views).
9	Planning documentation	A series of documents provided to an engineer to assist in the designing or manufacturing of a product.
10	Risk assessment	A document that focuses on the potential for accidents and harm and puts into place mitigations to prevent accidents and unsafe working practices, based on the severity of risk.

English Knowledge Organiser - Wednesdays

Week 1	Piece of Information	Answer
1	William Shakespeare	The Playwright who wrote Twelfth Night.
2	Queen Elizabeth I	Which Queen was on the throne when the play was written?
3	Twelfth Night	The holiday on January 6th was the last night of the Christmas celebration and celebrated as a festival when everything was turned upside down.
4	Metaphor	A comparison between two things that aren't alike but do have something in common.
5	Simile	A comparison using "like" or "as".
6	Personification	Giving human qualities to inanimate (non-living) objects.
7	Hyperbole	Deliberate/outrageous exaggeration.
8	Blank verse	Writing that has a rhythmic structure but doesn't rhyme.
9	Rhymed verse	Writing that has a rhythmic structure and uses rhyme.
10	Prose	Writing without a rhythmic structure.

Week 2	Piece of Information	Answer
1	Viola	A shipwrecked girl who disguises herself as a man - Cesario
2	Sebastian	Viola's twin brother who thinks she's dead.
3	Orsino	The Duke of Illyria who is in love with Olivia.
4	Olivia	She is a rich countess who is mourning but falls in love with Cesario.
5	Maria	Olivia's maid who likes Sir Toby.
6	Sir Toby Belch	Olivia's uncle who is always drunk.
7	Sir Andrew Aguecheek	A drunk who hopes to marry Olivia.
8	Feste	Olivia's fool and clown.
9	Malvolio	Olivia's chief servant who secretly likes her.
10	Antonio	Rescues Sebastian after the shipwreck.

Week 3	Piece of Information	Answer
1	Sight, smell, hearing, taste, and touch	The five senses.
2	Imagery	The use of descriptive language that appeals to the senses.
3	Onomatopoeia	The use of words to imitate the sounds they describe.
4	Iamb	A metrical foot consisting of two syllables.
5	Iambic pentameter	A line of verse with 5 pairs of stressed and unstressed beats.
6	William Shakespeare	The Playwright who wrote Twelfth Night.
7	Queen Elizabeth I	Which Queen was on the throne when the play was written?

8	Twelfth Night	The holiday on January 6th was the last night of the Christmas celebration and celebrated as a festival when everything was turned upside down.
9	Metaphor	A comparison between two things that aren't alike but do have something in common.
10	Simile	A comparison using "like" or "as".

Week 4	Piece of Information	Answer
1	Melodramatic	Exaggerated and emotional or sentimental.
2	Contemptuous	Expressing disapproval or disrespect.
3	Puritans	A religious group who opposed the theatre and other forms of entertainment.
4	Puritanical	Having a strict moral attitude towards self-indulgence or sex.
5	Puritanically	Elizabethan audiences would have been deeply unsympathetic to anyone behaving in this way.
6	Personification	Giving human qualities to inanimate (non-living) objects.
7	Hyperbole	Deliberate/outrageous exaggeration.
8	Blank verse	Writing that has a rhythmic structure but doesn't rhyme.
9	Rhymed verse	Writing that has a rhythmic structure and uses rhyme.
10	Prose	Writing without a rhythmic structure.

Week 5	Piece of Information	Answer
1	Pompous	Affectedly grand, solemn or self-important.
2	Unrequited	Love that is not returned.
3	Exasperate	Irritate intensely.
4	Masquerade	Pretend to be someone you are not. Put on a false show.
5	Woo	Try to gain the love of someone.
6	Viola	A shipwrecked girl who disguises herself as a man - Cesario
7	Sebastian	Viola's twin brother who thinks she's dead.
8	Orsino	The Duke of Illyria who is in love with Olivia.
9	Olivia	She is a rich countess who is mourning but falls in love with Cesario.
10	Maria	Olivia's maid who likes Sir Toby.

Week 6	Piece of Information	Answer
1	Lament	Passionate expression of grief or sorrow.
2	Loathe	To hate someone or something.
3	Turmoil	A state of disturbance, confusion or uncertainty.
4	Revelry	Noisy partying.
5	Predicament	A difficult or embarrassing situation.
6	Sir Toby Belch	Olivia's uncle who is always drunk.
7	Sir Andrew Aguecheek	A drunk who hopes to marry Olivia.

8	Feste	Olivia's fool and clown.
9	Malvolio	Olivia's chief servant who secretly likes her.
10	Antonio	Rescues Sebastian after the shipwreck.

Week 7	Piece of Information	Answer
1	Mayhem	Complete disorder and confusion. Chaos.
2	Ignominy	Public shame or disgrace.
3	Soliloquy	A speech where a character speaks his thoughts out loud so that only the audience can hear them.
4	Trepidation	A feeling of alarm or anxiety about something about to happen.
5	Concealment	A way or place of hiding.
6	Sight, smell, hearing, taste, and touch	The five senses.
7	Imagery	The use of descriptive language that appeals to the senses.
8	Onomatopoeia	The use of words to imitate the sounds they describe.
9	Iamb	A metrical foot consisting of two syllables.
10	Iambic pentameter	A line of verse with 5 pairs of stressed and unstressed beats.

Week 8	Piece of Information	Answer
1	Women were not allowed to work.	The reason Viola had to pretend to be a man?
2	Duel	An arranged engagement in combat between two people, with matched weapons, in accordance with agreed-upon rules.
3	Affray	A fight in a public place.
4	Elation	A feeling of great joy or pride.
5	Opportunist	A person who adapts their behaviour to take advantage of the situation.
6	Melodramatic	Exaggerated and emotional or sentimental.
7	Contemptuous	Expressing disapproval or disrespect.
8	Puritans	A religious group who opposed the theatre and other forms of entertainment.
9	Puritanical	Having a strict moral attitude towards self-indulgence or sex.
10	Puritanically	Elizabethan audiences would have been deeply unsympathetic to anyone behaving in this way.

Week 9	Piece of Information	Answer
1	Pompous	Affectedly grand, solemn or self-important.
2	Unrequited	Love that is not returned.
3	Exasperate	Irritate intensely.
4	Masquerade	Pretend to be someone you are not. Put on a false show.
5	Woo	Try to gain the love of someone.
6	Lament	Passionate expression of grief or sorrow.

7	Loathe	To hate someone or something.
8	Turmoil	A state of disturbance, confusion or uncertainty.
9	Revelry	Noisy partying.
10	Predicament	A difficult or embarrassing situation.

Week 10	Piece of Information	Answer
1	Mayhem	Complete disorder and confusion. Chaos.
2	Ignominy	Public shame or disgrace.
3	Soliloquy	A speech where a character speaks his thoughts out loud so that only the audience can hear them.
4	Trepidation	A feeling of alarm or anxiety about something about to happen.
5	Concealment	A way or place of hiding.
6	Women were not allowed to work.	The reason Viola had to pretend to be a man?
7	Duel	An arranged engagement in combat between two people, with matched weapons, in accordance with agreed-upon rules.
8	Affray	A fight in a public place.
9	Elation	A feeling of great joy or pride.
10	Opportunist	A person who adapts their behaviour to take advantage of the situation.

History Knowledge Organiser - Thursdays

Week 1	Piece of Information	Answer
1	Henry VII	This was the first Tudor King of England from 1485.
2	Battle of Bosworth Field	This was the event that led to the beginning of the Tudor Dynasty.
3	Dynasty	This is a line of hereditary rulers of a country.
4	Henry VIII	This was the second Tudor King of England from 1509, he was the father of Elizabeth I and Mary I.
5	Ann Bolyne	This was Henry VIII second wife and mother of Elizabeth I.
6	Lancaster	This is a branch of the Plantagenet family that is represented by a Red Rose.
7	York	This is a younger branch of the Plantagenet family represented by a white rose.
8	Henry VI	This was the last Lancastrian ruler of England, his reign was dominated by the Wars of the Roses.
9	Richard III	This was the younger brother of Edward IV, he was part of the Yorkist family.
10	Princes in the Tower	These were the sons of Edward IV, they were locked in the Tower of London until their disappearance.

Week 2	Piece of Information	Answer
1	Excommunicated	This means to exclude someone from participation in the Christian church.
2	Edward VI	This was the only son of Henry VIII and was crowned King at the age of 9.
3	Thomas Cromwell	This was the chief minister for Henry VIII until he was beheaded on the orders of the King.
4	Mary I	This was the Queen of England until 1558 who tried to reverse the Reformation.
5	Elizabeth I	This was the Queen of England until 1603 she was the last of the Tudor Monarchs.
6	Church of England	This was the new protestant church with the monarch of England as its leader formed in 1534.
7	Beheaded	This meant to cut off the head of a person as punishment for a crime.
8	Monasteries	A place where monks worship, live and work in order to distance themselves from society and be closer to God.
9	Mistress	This is the female partner of a married man.
10	Pope	The head of the Catholic Church.

Week 3	Piece of Information	Answer
1	Church of England	This is the new protestant church with the monarch of England as its leader formed in 1534.
2	Dissolution	This means the formal ending or dismissing of an official group or body, such as removing the power and wealth of monasteries by Henry VIII.
3	Indulgences	These were certificates that forgave sins they could be bought or earned by charity work.
4	Pope	This is God's representative on earth. Lived in Rome. Could excommunicate kings.
5	Martin Luther	This is the German priest who wrote the Ninety Five Theses and began the

		Reformation
6	Henry VII	This was the first Tudor King of England from 1485.
7	Battle of Bosworth Field	This was the event that led to the beginning of the Tudor Dynasty.
8	Dynasty	This is a line of hereditary rulers of a country.
9	Henry VIII	This was the second Tudor King of England from 1509, he was the father of Elizabeth I and Mary I.
10	Ann Bolyne	This was Henry VIII second wife and mother of Elizabeth I.

Week 4	Piece of Information	Answer
1	Reformation	The act of reforming the Religion of England from Catholic to Protestant.
2	Annul	Officially announce that something such as a law, agreement, or marriage no longer exists.
3	Mary Queen of Scots	She was the cousin of Elizabeth I and was a rival for the throne of England, to many she was seen as the rightful heir to the English throne.
4	Exile	This means to remove somebody from their native country usually for political reasons.
5	Golden Age	This is a period of great achievement, prosperity and happiness
6	Dissolution	This means the formal ending or dismissing of an official group or body, such as removing the power and wealth of monasteries by Henry VIII.
7	Indulgences	These were certificates that forgave sins they could be bought or earned by charity work.
8	Pope	This is God's representative on earth. Lived in Rome. Could excommunicate kings.
9	Martin Luther	This is the German priest who wrote the Ninety Five Theses and began the Reformation
10	Henry VII	This was the first Tudor King of England from 1485.

Week 5	Piece of Information	Answer
1	Babington Plot	This was the plot led by Anthony Babington to replace Elizabeth with Mary and led to Mary's execution.
2	Robert Dudley	He was Queen Elizabeth's childhood friend, many assumed that they would marry.
3	Phillip II of Spain	He was the king of Spain and Elizabeth I brother - in law.
4	Northern Rebellion	This was the failed rebellion of Northern Lords against Elizabeth I.
5	Secretary of State	This was one of the most important of Elizabeth's advisors and led the Privy council.
6	Mary Queen of Scots	She was the cousin of Elizabeth I and was a rival for the throne of England, to many she was seen as the rightful heir to the English throne.
7	Exile	This means to remove somebody from their native country usually for political reasons.
8	Golden Age	This is a period of great achievement, prosperity and happiness
9	Dissolution	This means the formal ending or dismissing of an official group or body, such as removing the power and wealth of monasteries by Henry VIII.
10	Indulgences	These were certificates that forgave sins they could be bought or earned by charity work.

Week 6	Piece of Information	Answer
1	Excommunicate	This means to ban someone from participation in Christian church services.
2	Gentry	These are people of good social position such as wealthy landowners.

3	Spanish Armada	This was the fleet of 151 ships and 34,000 soldiers sent to invade England in 1588.
4	Sir Francis Drake	He was an explorer, adventurer and military leader responsible for the defeat of the Spanish in 1588.
5	Francis Walsingham	He was Elizabeth I Secretary of State and spymaster and was one of her closest advisors..
6	Babington Plot	This was the plot led by Anthony Babington to replace Elizabeth with Mary and led to Mary's execution.
7	Robert Dudley	He was Queen Elizabeth's childhood friend, many assumed that they would marry.
8	Phillip II of Spain	He was the king of Spain and Elizabeth I brother - in law.
9	Northern Rebellion	This was the failed rebellion of Northern Lords against Elizabeth I.
10	Secretary of State	This was one of the most important of Elizabeth's advisors and led the Privy council.

Week 7	Piece of Information	Answer
1	Protestantism	This is a form of Christianity that was founded in the 16th Century as a protest against what were seen as errors in the Catholic church.
2	Puritan	This is an extreme form of Protestantism that sought to remove all connections to catholicism from the church.
3	Privy council	This was the most important group of Elizabeth's advisors who gave advice on foreign policy and military matters.
4	Foreign relations	This is a term used to describe the relations of governments from different countries.
5	Succession	This is the process of taking over a title, usually associated with the monarchy.
6	Spanish Armada	This was the fleet of 151 ships and 34,000 soldiers sent to invade England in 1588.
7	Sir Francis Drake	He was an explorer, adventurer and military leader responsible for the defeat of the Spanish in 1588.
8	Francis Walsingham	He was Elizabeth I Secretary of State and spymaster and was one of her closest advisors..
9	Babington Plot	This was the plot led by Anthony Babington to replace Elizabeth with Mary and led to Mary's execution.
10	Robert Dudley	He was Queen Elizabeth's childhood friend, many assumed that they would marry.

Week 8	Piece of Information	Answer
1	Roanoke	This was the first English colony in America, founded in 1587.
2	Poor Law	This was the law that allowed local councils to raise taxes to support the poor in the local area.
3	Shakespeare	He was an English poet, playwright and actor, born in 1564 in Stratford-upon-Avon.
4	Ruff	This was a large round collar worn by both men and women popular in the 17th Century.
5	Poverty	This means to be extremely poor.
6	Protestantism	This is a form of Christianity that was founded in the 16th Century as a protest against what were seen as errors in the Catholic church.
7	Puritan	This is an extreme form of Protestantism that sought to remove all connections to catholicism from the church.

8	Privy council	This was the most important group of Elizabeth's advisors who gave advice on foreign policy and military matters.
9	Foreign relations	This is a term used to describe the relations of governments from different countries.
10	Succession	This is the process of taking over a title, usually associated with the monarchy.

Week 9	Piece of Information	Answer
1	Edward VI	This was the only son of Henry VIII and was crowned King at the age of 9.
2	Thomas Cromwell	This was the chief minister for Henry VIII until he was beheaded on the orders of the King.
3	Mary I	This was the Queen of England until 1558 who tried to reverse the Reformation.
4	Elizabeth I	This was the Queen of England until 1603 she was the last of the Tudor Monarchs.
5	Church of England	This was the new protestant church with the monarch of England as its leader formed in 1534.
6	Henry VII	This was the first Tudor King of England from 1485.
7	Battle of Bosworth Field	This was the event that led to the beginning of the Tudor Dynasty.
8	Dynasty	This is a line of hereditary rulers of a country.
9	Henry VIII	This was the second Tudor King of England from 1509, he was the father of Elizabeth I and Mary I.
10	Ann Bolyne	This was Henry VIII second wife and mother of Elizabeth I.

Week 10	Piece of Information	Answer
1	Protestantism	This is a form a Christianity that was founded in the 16th Century as a protest against what were seen as errors in the Catholic church.
2	Puritan	This is an extreme form of Protestantism that sought to remove all connections to catholicism from the church.
3	Privy council	This was the most important group of Elizabeth's advisors who gave advice on foreign policy and military matters.
4	Foreign relations	This is a term used to describe the relations of governments from different countries.
5	Succession	This is the process of taking over a title, usually associated with the monarchy.
6	Mary Queen of Scots	She was the cousin of Elizabeth I and was a rival for the throne of England, to many she was seen as the rightful heir to the English throne.
7	Exile	This means to remove somebody from their native country usually for political reasons.
8	Golden Age	This is a period of great achievement, prosperity and happiness
9	Dissolution	This means the formal ending or dismissing of an official group or body, such as removing the power and wealth of monasteries by Henry VIII.
10	Indulgences	These were certificates that forgave sins they could be bought or earned by charity work.

Maths Knowledge Organiser - Thursdays

Week 1	Piece of Information	Answer
1	Construct	To draw a shape, line or angle accurately using a compass and straightedge (ruler).
2	Interpret	To explain or tell the meaning of a table or graph.
3	Tally chart	A way of keeping count by drawing marks and organised in a table.
4	Frequency table	A table that lists items and shows the number of times the items occur.
5	Bar chart	a graphical representation of data, quantities or numbers using bars.
6	Pictogram	A chart or graph which uses pictures to represent data.
7	Line graph	A graphical display of information that changes over time and uses straight lines to connect the data points.
8	Two-way table	A way of sorting data so that the frequency for two variables are shown in rows and columns.
9	Sum	The result or answer when adding two or more numbers or terms.
10	Difference	The result or answer when subtracting two numbers or terms.

Week 2	Piece of Information	Answer
1	Grouped data	Data that has been ordered and sorted into groups called classes, often displayed in a frequency table.
2	Average	A calculated central value of a set of numbers.
3	Mean	$\frac{\text{sum of the terms}}{\text{number of terms}}$
4	Median	The "middle" of a sorted list of numbers.
5	Mode	The value that appears most frequently in a data set.
6	Range	The difference between the lowest and highest values in a data set.
7	Compare	To examine the similarities and differences between numbers, quantities or values.
8	Scatter Graph (Diagram)	A graph of plotted points that show the relationship between two sets of data.
9	Correlation	When there is a relationship between two variables.
10	Positive correlation	A correlation where, as one variable increases, so does the other variable.

Week 3	Piece of Information	Answer
1	Negative correlation	A correlation where, as one variable increases, the other variable decreases.
2	Line of best fit	A line through a scatter plot of data points that best expresses the relationship between those points.
3	Pie chart	A circular graph which is divided into slices to illustrate numerical proportion.
4	Population	A whole set of individuals, items or data from which a statistical sample is drawn.
5	Point	A location represented by a dot. A point does not have any length, width, shape or size, it only has a position.
6	Construct	To draw a shape, line or angle accurately using a compass and straightedge (ruler).

7	Interpret	To explain or tell the meaning of a table or graph.
8	Tally chart	A way of keeping count by drawing marks and organised in a table.
9	Frequency table	A table that lists items and shows the number of times the items occur.
10	Bar chart	a graphical representation of data, quantities or numbers using bars.

Week 4	Piece of Information	Answer
1	Line	When two distinct points are connected.
2	Vertex (vertices)	A corner or a point where lines meet.
3	Edge	Where two faces of a solid figure meet.
4	Face	The flat surface of a 3-D object.
5	Parallel	Two lines that are the same distance apart.
6	Pictogram	A chart or graph which uses pictures to represent data.
7	Line graph	A graphical display of information that changes over time and uses straight lines to connect the data points.
8	Two-way table	A way of sorting data so that the frequency for two variables are shown in rows and columns.
9	Sum	The result or answer when adding two or more numbers or terms.
10	Difference	The result or answer when subtracting two numbers or terms.

Week 5	Piece of Information	Answer
1	Perpendicular	Two lines that meet at 90o.
2	90°	Right angle
3	Parallelogram	A quadrilateral with two pairs of parallel sides.
4	Trapezium	A quadrilateral with one pair of parallel sides.
5	Kite	A quadrilateral with two pairs of adjacent (touching) sides which are equal.
6	Grouped data	Data that has been ordered and sorted into groups called classes, often displayed in a frequency table.
7	Average	A calculated central value of a set of numbers.
8	Mean	$\frac{\text{sum of the terms}}{\text{number of terms}}$
9	Median	The "middle" of a sorted list of numbers.
10	Mode	The value that appears most frequently in a data set.

Week 6	Piece of Information	Answer
1	Rhombus	A quadrilateral whose four sides all have the same length.
2	Equilateral triangle	A triangle in which all three sides have the same length.
3	Isosceles triangle	A triangle in which two sides have the same length.
4	Centre	A point in the middle of the object such as a circle or sphere.
5	Radius	The distance from the centre to the circumference of a circle.
6	Range	The difference between the lowest and highest values in a data set.

7	Compare	To examine the similarities and differences between numbers, quantities or values.
8	Scatter Graph (Diagram)	A graph of plotted points that show the relationship between two sets of data.
9	Correlation	When there is a relationship between two variables.
10	Positive correlation	A correlation where, as one variable increases, so does the other variable.

Week 7	Piece of Information	Answer
1	Diameter	A line joining two points on the circumference and also goes through the centre.
2	Circumference	The perimeter of a circle.
3	Congruent	Exactly the same size and shape.
4	Similar	Figures that are the same shape but different sizes.
5	Prism	A 3-dimensional shape with two identical shapes facing each other.
6	Negative correlation	A correlation where, as one variable increases, the other variable decreases.
7	Line of best fit	A line through a scatter plot of data points that best expresses the relationship between those points.
8	Pie chart	A circular graph which is divided into slices to illustrate numerical proportion.
9	Population	A whole set of individuals, items or data from which a statistical sample is drawn.
10	Point	A location represented by a dot. A point does not have any length, width, shape or size, it only has a position.

Week 8	Piece of Information	Answer
1	Cylinder	A 3D shape with two circular ends joined by a curved surface.
2	Pyramid	A 3D shape with a polygon base and triangular faces that meet at a point.
3	Net	What a 3D shape looks like if it is opened out flat.
4	$V = l \times w \times h$	Volume of cuboid
5	$V = \text{Area of the triangle} \times \text{length}$	Volume of triangular prism
6	Line	When two distinct points are connected.
7	Vertex (vertices)	A corner or a point where lines meet.
8	Edge	Where two faces of a solid figure meet.
9	Face	The flat surface of a 3-D object.
10	Parallel	Two lines that are the same distance apart.

Week 9	Piece of Information	Answer
1	Perpendicular	Two lines that meet at 90o.
2	90°	Right angle
3	Parallelogram	A quadrilateral with two pairs of parallel sides.
4	Trapezium	A quadrilateral with one pair of parallel sides.
5	Kite	A quadrilateral with two pairs of adjacent (touching) sides which are equal.

6	Rhombus	A quadrilateral whose four sides all have the same length.
7	Equilateral triangle	A triangle in which all three sides have the same length.
8	Isosceles triangle	A triangle in which two sides have the same length.
9	Centre	A point in the middle of the object such as a circle or sphere.
10	Radius	The distance from the centre to the circumference of a circle.

Week 10	Piece of Information	Answer
1	Diameter	A line joining two points on the circumference and also goes through the centre.
2	Circumference	The perimeter of a circle.
3	Congruent	Exactly the same size and shape.
4	Similar	Figures that are the same shape but different sizes.
5	Prism	A 3-dimensional shape with two identical shapes facing each other.
6	Cylinder	A 3D shape with two circular ends joined by a curved surface.
7	Pyramid	A 3D shape with a polygon base and triangular faces that meet at a point.
8	Net	What a 3D shape looks like if it is opened out flat.
9	$V = l \times w \times h$	Volume of cuboid
10	$V = \text{Area of the triangle} \times \text{length}$	Volume of triangular prism

Geography Knowledge Organiser - Fridays

Week 1	Piece of Information	Answer
1	Silk roads	This is a network of trade routes that link the East and West.
2	Trade	The buying and selling of goods and services between countries.
3	Goods	These are items such as food, oil, electronics etc.
4	Services	These are providing people with help eg. a mechanic fixing a car.
5	One belt, one road initiative	This describes two new global trade routes planned by China, also known as The New Silk Roads.
6	Tax	A compulsory contribution from your income that is given to and used by the government.
7	Maritime	This is a term that means over the sea.
8	GDP	Gross Domestic Product is the value of all goods and services produced within a country.
9	Global East	This includes places such as Asia and the Middle East.
10	Global West	This includes places such as North America, Europe, Australia and New Zealand.

Week 2	Piece of Information	Answer
1	Economy	The state of a country or region in terms of the production and consumption of goods and services and the supply of income.
2	Manufacturing	The turning of raw materials into products, usually within a factory.
3	Infrastructure	The organisation of structures and facilities such as buildings, roads and power supplies.
4	Endangered species	When a species has very few of them left, it has the potential to become extinct.
5	Political migration	This is fleeing a country due to war, persecution or other dangers.
6	Civil war	A war within a country.
7	Democracy	A system of government where the whole population is entitled to vote to elect its leaders.
8	Poverty	A state of being extremely poor.
9	Refugee	A person who is forced to move from their country of origin often as a result of civil wars or natural disasters.
10	Asylum seeker	A person who has left their home as a political refugee and is seeking protection in another country.

Week 3	Piece of Information	Answer
1	Push factor	A reason that people want to leave a place eg. low paying jobs.
2	Pull factor	A reason that people want to move to a place eg. high paying jobs.
3	Internally displaced	A person who is forced to leave their home but remains within the country's borders.

4	Sanitation	These are conditions relating to public health such as clean drinking water and disposal of sewage.
5	Aid	This is a donation eg. food, water, medical equipment and money.
6	Silk roads	This is a network of trade routes that link the East and West.
7	Trade	The buying and selling of goods and services between countries.
8	Goods	These are items such as food, oil, electronics etc.
9	Services	These are providing people with help eg. a mechanic fixing a car.
10	One belt, one road initiative	This describes two new global trade routes planned by China, also known as The New Silk Roads.

Week 4	Piece of Information	Answer
1	Resources	A stock or supply of something that is essential to life e.g. food, water and energy.
2	Colonialism	When one country establishes rule over another.
3	Civil rights	The rights of citizens to political and social freedom and equality.
4	Apartheid	A policy or system of segregation or discrimination on the grounds of race.
5	Savanna	This is a biome of grassy plains with a tropical climate.
6	Tax	A compulsory contribution from your income that is given to and used by the government.
7	Maritime	This is a term that means over the sea.
8	GDP	Gross Domestic Product is the value of all goods and services produced within a country.
9	Global East	This includes places such as Asia and the Middle East.
10	Global West	This includes places such as North America, Europe, Australia and New Zealand.

Week 5	Piece of Information	Answer
1	Deciduous woodland	This is a biome of leafed trees that has a temperate climate.
2	Climate change	A long term change in the earth's climate.
3	Desertification	The process by which land becomes drier and degraded.
4	Overgrazing	This is when too many livestock are fed on the same area of land for too long, exhausting the soil leaving it barren.
5	Crop yield	This is the amount of crops that are grown.
6	Economy	The state of a country or region in terms of the production and consumption of goods and services and the supply of income.
7	Manufacturing	The turning of raw materials into products, usually within a factory.
8	Infrastructure	The organisation of structures and facilities such as buildings, roads and power supplies.
9	Endangered species	When a species has very few of them left, it has the potential to become extinct.
10	Political migration	This is fleeing a country due to war, persecution or other dangers.

Week 6	Piece of Information	Answer
--------	----------------------	--------

1	Biodiversity	The variety of plant and animal life within an ecosystem.
2	Salinisation	The process by which the level of salt within soil increases.
3	Great green wall	This is an initiative of planting more trees to increase farming land in the Sahel.
4	Agriculture	This is farming.
5	Dam	A man-made barrier constructed to hold back water, usually stored in a reservoir.
6	Civil war	A war within a country.
7	Democracy	A system of government where the whole population is entitled to vote to elect its leaders.
8	Poverty	A state of being extremely poor.
9	Refugee	A person who is forced to move from their country of origin often as a result of civil wars or natural disasters.
10	Asylum seeker	A person who has left their home as a political refugee and is seeking protection in another country.

Week 7	Piece of Information	Answer
1	Hydroelectric power	The generation of electricity using flowing water typically from a reservoir held behind a dam.
2	Urban	This is a built up area eg. a city or town,
3	Rural	This is an area of countryside.
4	Birth rate	The number of births per 1000 per year in a place.
5	Tourism	The commercial organisation of people going on holiday.
6	Push factor	A reason that people want to leave a place eg. low paying jobs.
7	Pull factor	A reason that people want to move to a place eg. high paying jobs.
8	Internally displaced	A person who is forced to leave their home but remains within the country's borders.
9	Sanitation	These are conditions relating to public health such as clean drinking water and disposal of sewage.
10	Aid	This is a donation eg. food, water, medical equipment and money.

Week 8	Piece of Information	Answer
1	Export	To sell resources to other countries.
2	Primary sector	The sector of industry where raw materials are extracted from the ground e.g. farming, mining and fishing.
3	Deforestation	The cutting down and removal of forest.
4	Slash and burn	When trees are cut down and the remains are then burnt.
5	Extinction	When a species is completely wiped out.
6	Resources	A stock or supply of something that is essential to life e.g. food, water and energy.
7	Colonialism	When one country establishes rule over another.
8	Civil rights	The rights of citizens to political and social freedom and equality.
9	Apartheid	A policy or system of segregation or discrimination on the grounds of race.
10	Savanna	This is a biome of grassy plains with a tropical climate.

Week 9	Piece of Information	Answer
1	Deciduous woodland	This is a biome of leafed trees that has a temperate climate.
2	Climate change	A long term change in the earth's climate.
3	Desertification	The process by which land becomes drier and degraded.
4	Overgrazing	This is when too many livestock are fed on the same area of land for too long, exhausting the soil leaving it barren.
5	Crop yield	This is the amount of crops that are grown.
6	Biodiversity	The variety of plant and animal life within an ecosystem.
7	Salinisation	The process by which the level of salt within soil increases.
8	Great green wall	This is an initiative of planting more trees to increase farming land in the Sahel.
9	Agriculture	This is farming.
10	Dam	A man-made barrier constructed to hold back water, usually stored in a reservoir.

Week 10	Piece of Information	Answer
1	Hydroelectric power	The generation of electricity using flowing water typically from a reservoir held behind a dam.
2	Urban	This is a built up area eg. a city or town,
3	Rural	This is an area of countryside.
4	Birth rate	The number of births per 1000 per year in a place.
5	Tourism	The commercial organisation of people going on holiday.
6	Export	To sell resources to other countries.
7	Primary sector	The sector of industry where raw materials are extracted from the ground e.g. farming, mining and fishing.
8	Deforestation	The cutting down and removal of forest.
9	Slash and burn	When trees are cut down and the remains are then burnt.
10	Extinction	When a species is completely wiped out.

Food, Art, Drama, Music & RS Knowledge Organisers - Weekends

Food

Week 1	Piece of Information	Answer
1	Seasonal foods	Fruit and vegetables that are ready to eat at a particular time of the year
2	Local foods	Food that is produced a short distance from where it is consumed
3	Nutritious	Nourishing
4	Organic food	Grown without the use of man-made fertilisers and pesticides
5	Processed food	A food that is altered in some way during production
6	Zinc	A mineral needed to make DNA
7	Calcium	A mineral needed for strong bones.

8	Iron	A mineral needed for making haemoglobin.
9	Sodium	A mineral needed for regulating the amount of water in the body.
10	Fluoride	A mineral essential for strong tooth enamel.

Drama

Week 2	Piece of Information	Answer
1	Athens	The capital of Greece.
2	Comedy	A funny genre of play which always has a happy ending.
3	Tragedy	A serious genre of play which always has a sad ending.
4	Satire	A rude genre of play used to make fun of real events and people.
5	Amphitheatre	An open air theatre built to allow large crowds to see and hear the actors on the stage.
6	Sophocles	The most successful Ancient Greek playwright.
7	Masks	A full or partial covering for the face.
8	Chorus	A group of singers who tell the story, like a narrator.
9	Thespis	The first ever actor.
10	Dionysus	The ancient Greek God whom performances were in honour of.

Art

Week 3	Piece of Information	Answer
1	Paper Orientation	The position of the surface e.g. portrait or landscape
2	Technique	The way an artist uses their tools
3	Layout	The arrangement of artwork on a page
4	Stylised	A simplified form
5	Cartridge paper	A heavy type of paper used for drawing
6	Colour mixing	The process of combining different amounts of paint
7	Palette	A surface on which to put paints
8	Organic	A shape or form that is free flowing and irregular in shape
9	Geometric	A shape or form that has regular lines
10	Design	A plan to decide the appearance of an artwork

RS

Week 4	Piece of Information	Answer
1	Islam	This is the religion of Muslims. It means 'submission to the will of Allah'. It is the world's second largest religion with over 1.8 billion followers.
2	Muslim	This is a follower of the religion of Islam.
3	Qur'an	This is the Muslim holy text. Muslims believe it was first revealed to the Prophet Muhammad by the Angel Jibril.
4	Tawhid	This is the idea that God is One, and cannot be divided.
5	Prophet Muhammad (PBUH)	This was an Arab religious, social, and political leader and founder of Islam. According to Islamic doctrine he was the Final Prophet. PBUH = peace be upon him.
6	The Five Pillars of Islam	These are the five basic duties in Islam. They are seen as an essential

		foundation to a Muslim's life.
7	Shahada	This is the First Pillar of Islam - The Muslim declaration of faith - "There is no God but Allah and Muhammad is the Prophet of Allah."
8	Salah	This is the Second Pillar of Islam - The five compulsory daily (duty) prayers.
9	Zakah	This is the Third Pillar of Islam - 2.5% Charitable giving.
10	Sawm	This is the Fourth Pillar of Islam - Fasting- Muslims are required to fast during Ramadan. Food and drink are not allowed during daylight hours. The fast shows self-discipline, obedience and dedication to Allah.

Music

Week 5	Piece of Information	Answer
1	DAW	Digital Audio Workstation
2	Production	Creating music through music technology using different tools and instruments to create sounds that go together for the purpose of song creation.
3	Composition	The process of creating and arranging musical ideas.
4	Audio	Refers to sound, particularly the recording, reproduction, and processing of sound waves.
5	Track	A digital channel where audio or MIDI data can be recorded, edited, and mixed to create a complete musical composition.
6	Drum Machine	An electronic musical instrument that is designed to produce percussion and drum sounds.
7	Drum Beat	A rhythmic pattern of percussion sounds produced by a drum kit, drum machine, or any other percussion instrument.
8	Bass Line	Low-pitched notes played by a bass instrument.
9	BPM	Beats Per Minute
10	Key	A key is a group of pitches or scale that forms a musical composition.

Food

Week 6	Piece of Information	Answer
1	Lacto-ovo vegetarian	A person who chooses to eat only plant foods and milk, milk products and eggs but no meat, poultry or fish.
2	Lacto-vegetarian	A person who chooses to eat only plant foods and milk products but no eggs, meat, poultry or fish.
3	Vegan	A person who chooses to eat only plant foods and no animal foods.
4	Dietary fibre	The indigestible part of plants that help to keep the digestive system healthy.
5	Lactose intolerant	Unable to digest the sugar lactose.
6	Food miles	The distance food travels before it reaches your plate
7	Carbon footprint	The amount of CO ₂ released into the atmosphere because of a person's activities.
8	Carbon emissions	The release of carbon into the atmosphere.
9	Fairtrade	Trade between companies in developed countries and producers in developing countries in which fair prices are paid to the farmers.
10	Appetising	Food prepared, cooked and served so well that people want to eat it.

Drama

Week 7	Piece of Information	Answer
1	Zeus	King of the Gods
2	Prometheus	Zeus' son, who stole fire from the Gods and gave it to humans.
3	Epimetheus	Zeus' son, and Prometheus' brother. He also marries Pandora.
4	Pandora	Epimethius' wife, who opens the box and releases
5	Pandora's box	The cursed wedding gift given to Epimethius and Pandora
6	Hesiod	The poet who wrote Pandora's Box
7	Proscenion	The raised performance area of the amphitheatre
8	Orchestra	The round, flat performance area of the amphitheatre
9	Scene	A concealed area of the amphitheatre where the actors would change.
10	Parados	The aisles which allowed the actors to enter from 'outside' onto the proscenion or orchestra.

Art

Week 8	Piece of Information	Answer
1	Brush stroke	The mark made by a paintbrush and paint
2	Poster paint	A type of ready-mixed paint
3	Accurate	Correct in all details
4	Characteristics	A feature or quality that an artwork has
5	Concentric	A shape within a shape
6	Illustration	A sequence of drawings demonstrating a story
7	Border	The decorative design or edge of a surface, line or area
8	Frame	The presentation of visual elements
9	Refine	To make an artwork better
10	Final Piece	The last outcome of a project

RS

Week 10	Piece of Information	Answer
1	Hajj	This is the Fifth Pillar of Islam - A special religious journey known as a pilgrimage to Mecca, Saudi Arabia. Muslims are required to go at least once in their lifetime. It lasts for five days.
2	Mecca (Makkah)	This is the holiest city for Muslims, the place where Muhammad was born.
3	Prophet	This is an individual who is regarded as being in contact with a divine being; someone who has a message for mankind.
4	Mosque	This is a Muslim place of worship.
5	Imam	This is a person who leads Muslim worshippers in prayer.
6	Wudu	This is the washing ritual performed before prayer.
7	Rak'ahs	These are a set of sequences including actions and recitations (words repeated aloud) used during prayer.
8	Ramadan	This is the most important month in the Islamic calendar, when the Angel Jibril started to reveal the Qur'an (Holy book) to Muhammad.
9	Eid- ul- Fitr	This is the Muslim festival marking the end of the fast of Ramadan.
10	Night of Power	This is the night when the angel Jibril first started to recite the Qur'an to Muhammad, Muslims celebrate this night during Ramadan.

Music

Week 10	Piece of Information	Answer
1	Sample	A pre-recorded sound or musical phrase that is incorporated into a new composition or recording.
2	Arrangement	The process of how a song is structured.
3	Structure	Refers to the organisation and arrangement of a piece of music.
4	Strophic Form	Strophic form is a song structure in which the same melody is repeated in each verse.
5	Texture	Refers to the layers of a song.
6	Loop	A short section of audio that can be repeated continuously to create a repeating musical pattern.
7	Cut	Dividing an audio file into smaller parts.
8	Copy	Duplicating an audio file and placing it in a new location within the project
9	Mute	Silencing or turning off the audio of a particular track
10	Solo	The process of muting all other tracks except the selected track, allowing for focused listening

Character Education

Our vision

Character Education will help you to develop your confidence, compassion, and enable you to contribute effectively to society, be a successful learner and a responsible citizen. By focusing on these character challenges you will also develop self esteem and a better understanding and respect for others, as well as an awareness of wider spiritual and cultural issues. The challenges and experiences listed below will ensure you are able to climb your own personal mountain to the very best universities and professions.

How to earn and record your badges

- For each badge you complete you will need to have them signed off by a member of staff.
- Remember for some of your badges you will need to provide evidence.
- Miss Exton and Miss Blick will then present you with your badge on completion.
- You will update your main Character booklet each week in tutor time.
- You will need to achieve each badge before being awarded the next, for example; you cannot achieve gold if you have not completed the bronze or silver in that badge category.

Ambition - Excellence - Pride

Ambition				
Badge	Badge Level	You must...	Achieved?	Staff Signature
Culture <i>This is a demonstration of ambition because you are working outside of your comfort zone.</i>	Bronze	Perform your creative talent at school.		
	Silver	Take part in three different events within the following: school drama performance, dance performance, art exhibition, orchestra/ band or a sporting tournament.		
	Gold	Take part in ten or more different events listed above.		
Academia <i>This is a demonstration of ambition because you are exploring opportunities available to you after Gloucester Academy.</i>	Bronze	Attend 3 external Higher Academic Events (careers lectures/college/sixth form/university visit).		
	Silver	Visit a Russell Group University.		
	Gold	Successfully secure an offer at a sixth form or college to complete A-Levels / Apprenticeship.		
Futures <i>This is a demonstration of ambition because you are climbing your own personal mountain to the very best universities and professions.</i>	Bronze	Take part in a one-to-one interview with a career's advisor.		
	Silver	To produce a high-quality CV checked by SLT/Careers adviser.		
	Gold	To secure a professional work experience placement.		
Literacy <i>This is a demonstration of ambition because you are expanding your vocabulary.</i>	Bronze	To read 25 books and complete book reviews.		
	Silver	To read 50 books and complete book reviews.		
	Gold	To read 150 books and complete book reviews.		

Ambition - Excellence - Pride

Excellence				
Badge	Badge Level	You must...	Achieved?	Staff Signature
Sport <i>This is a demonstration of excellence because you are representing your school.</i>	Bronze	Play in 10 competitive sports matches or competitions for the school team.		
	Silver	Play in 25 competitive sports matches or competitions for the school team.		
	Gold	Play in a competitive sports match or competition regionally or nationally.		
Community <i>This is a demonstration of excellence because you are helping others.</i>	Bronze	Be an active member of an in-school community for one unit; GA prep, an enrichment activity or homework support.		
	Silver	Write and propose a new community project to key stakeholders.		
	Gold	Organise and deliver a community project event.		
Leadership <i>This is a demonstration of excellence because you are being a role model to others.</i>	Bronze	Be on the student leadership team (sports captain, Character representative, mentor or ambassador).		
	Silver	Have impacted change or improvement as a leader (provide evidence of what you have achieved).		
	Gold	Create and lead your own leadership event.		
Adventure <i>This is a demonstration of excellence because you have challenged yourself.</i>	Bronze	Complete a school residential / Outdoor Adventure Activity.		
	Silver	Complete the Duke of Edinburgh BRONZE Award.		
	Gold	Complete the Duke of Edinburgh SILVER Award or Ten Tors challenge.		

Ambition - Excellence - Pride

Pride				
Badge	Badge Level	You must...	Achieved?	Staff Signature
Charity <i>This is a demonstration of pride because you have helped others.</i>	Bronze	Volunteer 10 hours to the local community or charity.		
	Silver	Organise a charity event and raise more than £100.		
	Gold	Organise a charity event and raise more than £500.		
Commitment <i>This is a demonstration of pride because you have dedicated time and effort to something you enjoy.</i>	Bronze	Visit one of the following; art gallery, theatre, museum, concert, ballet, or similar. Or have 100% attendance at an enrichment activity for a unit.		
	Silver	Visit two different places from the above list. Or have 100% attendance at two different enrichment activities for two units.		
	Gold	Visit five of the following; art gallery, theatre, museum, concert, ballet, or similar. Or have 100% attendance at three different enrichment activities for three units.		
Environment <i>This is a demonstration of pride because you are making the world more eco friendly.</i>	Bronze	Take part in an event which improves your school environment.		
	Silver	Organise an event which improves your local environment.		
	Gold	Contribute to a national event, or movement which aims to improve the environment.		
Diversity <i>This is a demonstration of pride because you have celebrated all things that make us unique.</i>	Bronze	Take part in one event; assembly or festival which celebrates diversity (race, religion, LGBTQI+).		
	Silver	Take part in two events that celebrate two different types of diversity.		
	Gold	Organise an event, festival or assembly which celebrates diversity.		