GLOUCESTER ACADEMY

GREENSHAW LEARNING TRUST

Gloucester Academy

Unit 3

Class of 2022

Knowledge Organiser

CORE SUBJECTS

Knowledge is power. Information is liberating.

Logins:

School email

Username: _____@gloucesteracademy.co.uk

Password: _____

School computer

Username: _____

Password: _____

hegartymaths.com

Username: _____

Password: _____

Contents:

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 one hour, 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 you are on. This is on 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 piece of information - we recommend saying it aloud. Repeat this process several times, until you are confident enough to use your practice book 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. There are to be no blank lines in your practice book.

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 (remember to 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 (word for word), tick the attempt and move on to the next piece of information within the weekly segment. You may find that you need to complete a few purple pen attempts before you recall the knowledge point word for word.

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 ~~pt~~partaly premamble 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. Mitocondrion. 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 as well as three sessions of Hegarty Maths homework per week. Each of these are expected to take up to 30 minutes.

We also encourage you to continue to read independently as part of the Reading Challenge.

	Monday	Tuesday	Wednesday	Thursday	Friday	Weekend
Knowledge Organiser in your practice book **30 minutes**	Science & Maths	English Language AND English Literature	Choice 1 _____	Choice 2 _____	Choice 3 _____	Choice 4 _____
Hegarty Maths **30 minutes**	✓		✓		✓	
Reading challenge	✓	✓	✓	✓	✓	✓

Self-tracker:

Week	Homework	Monday	Tuesday	Wednesday	Thursday	Friday	Weekend
1 w/c 04/04/22	KO						
	Online						
	Read						
2 w/c 25/04/22	KO						
	Online						
	Read						
3 w/c 02/05/22	KO						
	Online						
	Read						
4 w/c 09/05/22	KO						
	Online						
	Read						
5 w/c 16/05/22	KO						
	Online						
	Read						
6 w/c 23/05/22	KO						
	Online						
	Read						
7 w/c 06/06/22	KO						
	Online						
	Read						
8 w/c 13/06/22	KO						
	Online						
	Read						
9 w/c 20/06/22	KO						
	Online						
	Read						
10 w/c 27/06/22	KO						
	Online						
	Read						

Maths Homework – Hegarty Maths

You will get three hegartymaths.com tasks to complete per week. One on Monday, Wednesday, and Friday. You will have one week to complete each assigned task.

We expect you to complete each task by:

- Watching the video and taking detailed notes in HegartyMaths homework booklet.
- Completing the quiz that follows the video showing full workings in your HegartyMaths booklet.

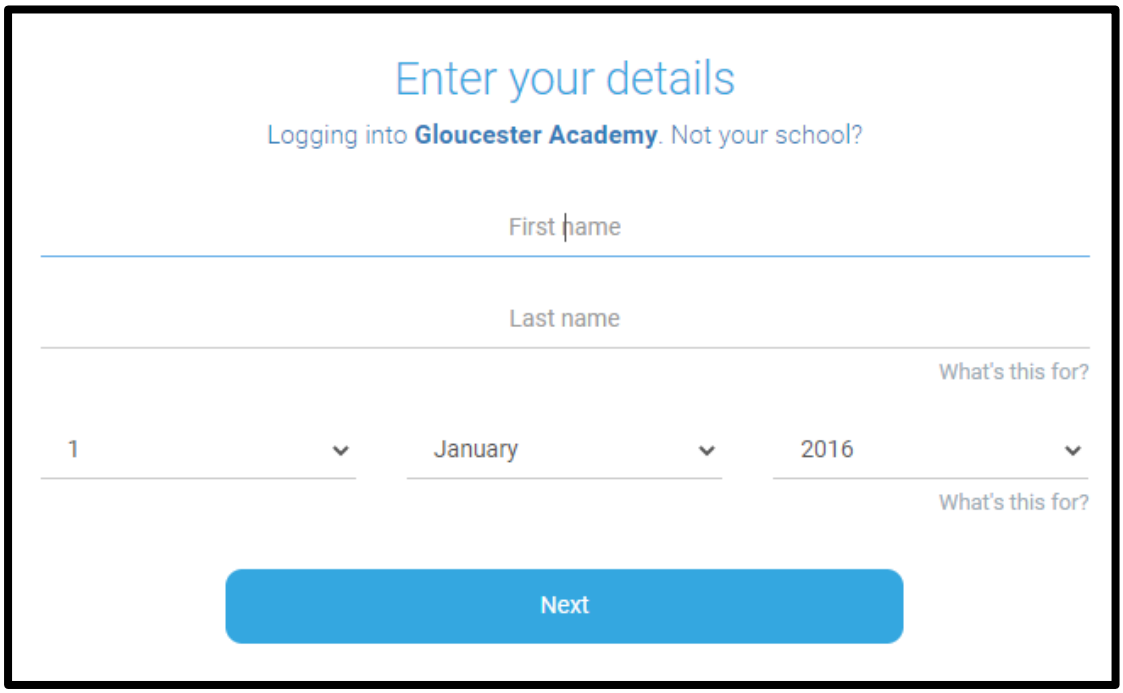
During the quiz if you click the "Get Help" button it takes you to the relevant example in the video. If you want more support there will be lunch time clubs running during the week.

Fix up 5 – If you have completed all your tasks and want to do extra work, click on "Revise" then click "Fix up 5". Here you will get five questions based on what you have got incorrect in the past.

For more information and guidance please go to: https://www.gloucesteracademy.com/students/homework-and-revision-guidance/hegarty-maths

How to login

Type in Gloucester Academy, or use the school's postcode GL4 6RN, where it says school name. Enter your name and date of birth. When you log in for the first time you will be asked to create a password, make sure you write this down in the Login Details page at the front of this booklet.



Science Knowledge Organiser - Mondays

Week 1 04/04/22	Piece of Information	Answer
1	Independent variable	A factor that we change.
2	Dependent variable	A factor that we measure.
3	Accurate measurement	Close to the true value.
4	Precise measurement	Results that cluster closely.
5	Control variable	A factor that we keep the same.
6	Repeatable	When after repetition, under the same conditions by the same investigator, gives similar results.
7	Reproducible	Similar results are obtained by different investigators with different equipment.
8	Random error	Results vary unpredictably, so take more measurements and calculate a mean value.
9	Systematic error	Results differ from the true value by a consistent amount each time.
10	Zero error	A measuring system gives a false reading when the true value of a measured quantity is zero,

Week 2 25/04/22	Piece of Information	Answer
1	Peer review	Results reviewed by other scientists to help prevent false claims, avoid bias, and make sure that conclusions are valid.
2	Anomalous result	Does not fit the pattern so excluded when calculating the mean.
3	Resolution	This is the smallest change in the quantity being measured (input) of a measuring instrument that gives a perceptible change in the reading.
4	Reaction profile	Graphs which show the relative energy of reactants and products in a chemical reaction.
5	Activation energy	The minimum energy particles must have to react.
6	Exothermic	A reaction where thermal energy is transferred from the chemicals to the surroundings so the temperature increases.
7	Endothermic	A reaction where thermal energy is transferred from the surroundings to the chemicals so the temperature decreases.
8	Alkali	Soluble metal hydroxide E.g. NaOH
9	Bases	Insoluble metal hydroxides and metal carbonates E.g. $Ca(OH)_2$.
10	Strong acids	Acid in which all the molecules dissociate into ions in water E.g. HCl.

Week 3 02/05/22	Piece of Information	Answer
1	Prokaryotic	Cells that do not contain a nucleus E.g. Bacteria.
2	Mitochondria	A subcellular organelle. The site of aerobic respiration occurs.
3	Organelle	A subcellular structure with a specific function within the cell.
4	Ribosome	A subcellular organelle found in the cytoplasm of the cell. The site of protein synthesis.
5	Eukaryotic	Cells that contain a nucleus and membrane bound organelles.

6	Independent variable	A factor that we change.
7	Dependent variable	A factor that we measure.
8	Accurate measurement	Close to the true value.
9	Precise measurement	Results that cluster closely.
10	Control variable	A factor that we keep the same.

Week 4 09/05/22	Piece of Information	Answer
1	Relative Atomic Mass	The average mass of atoms of an element including the isotopes.
2	Relative Formula Mass	The sum of the relative atomic masses of all atoms shown in the formula.
3	Mole	Measurement of the amount of a substance.
4	Avogadro's Constant	The number of atoms in 1M (6.02×10^{23})
5	Conservation of Mass	In a reaction the mass of products = mass of reactants.
6	Repeatable	When after repetition, under the same conditions by the same investigator, gives similar results.
7	Reproducible	Similar results are obtained by different investigators with different equipment.
8	Random error	Results vary unpredictably, so take more measurements and calculate a mean value.
9	Systematic error	Results differ from the true value by a consistent amount each time.
10	Zero error	A measuring system gives a false reading when the true value of a measured quantity is zero,

Week 5 16/05/222	Piece of Information	Answer
1	Joule	The unit for work done (J).
2	Dissipate	When energy is not transferred to useful energy stores, and is lost.
3	Power	The rate at which energy is transferred. Measured in Watts.
4	Efficiency	A way of expressing the proportion of energy that is usefully transferred.
5	Scalar Quantity	A quantity with magnitude and no direction.
6	Peer review	Results reviewed by other scientists to help prevent false claims, avoid bias, and make sure that conclusions are valid.
7	Anomalous result	Does not fit the pattern so excluded when calculating the mean.
8	Resolution	This is the smallest change in the quantity being measured (input) of a measuring instrument that gives a perceptible change in the reading.
9	Reaction profile	Graphs which show the relative energy of reactants and products in a chemical reaction.
10	Activation energy	The minimum energy particles must have to react.

Week 6 23/05/22	Piece of Information	Answer
1	Vector Quantity	A quantity with both magnitude and direction.
2	Velocity	A vector - a speed in a defined direction. Unit is m/s.
3	Displacement	A vector - a distance travelled in a defined direction. Unit is m.
4	Directly proportional	Diagonal straight line from the origin on a graph.

5	Carbon footprint	The amount of carbon dioxide and other greenhouse gases given out over the full life cycle of a product, service or event.
6	Exothermic	A reaction where thermal energy is transferred from the chemicals to the surroundings so the temperature increases.
7	Endothermic	A reaction where thermal energy is transferred from the surroundings to the chemicals so the temperature decreases.
8	Alkali	Soluble metal hydroxide E.g. NaOH
9	Bases	Insoluble metal hydroxides and metal carbonates E.g. $Ca(OH)_2$.
10	Strong acids	Acid in which all the molecules dissociate into ions in water E.g. HCl.

Week 7 06/06/22	Piece of Information	Answer
1	Isotopes	Different forms of a particular element (same number of protons but different numbers of neutrons).
2	Subatomic particles	Protons and neutrons are found in the nucleus which is surrounded by orbiting electrons.
3	Alpha Particle Scattering Experiment	An experiment that showed that the mass of the atom is concentrated at its centre (in the nucleus).
4	Nuclear Model	Suggested by Niels Bohr; electrons move around the nucleus in circular orbits at specific distances from the nucleus.
5	Half Life	The time taken for the number of nuclei in a radioactive isotope to halve.
6	Prokaryotic	Cells that do not contain a nucleus E.g. Bacteria.
7	Mitochondria	A subcellular organelle. The site of aerobic respiration occurs.
8	Organelle	A subcellular structure with a specific function within the cell.
9	Ribosome	A subcellular organelle found in the cytoplasm of the cell. The site of protein synthesis.
10	Eukaryotic	Cells that contain a nucleus and membrane bound organelles.

Week 8 13/06/22	Piece of Information	Answer
1	Life cycle assessment	An examination of the impact of a product on the environment throughout its life.
2	Value judgement	An assessment of a situation that may be subjective based on a person's opinions and/or values.
3	Potable water	Water that is safe to drink.
4	Desalination	A process to remove dissolved substances (salt) from sea water.
5	Ore	A rock from which a metal can be extracted for profit.
6	Relative Atomic Mass	The average mass of atoms of an element including the isotopes.
7	Relative Formula Mass	The sum of the relative atomic masses of all atoms shown in the formula.
8	Mole	Measurement of the amount of a substance.
9	Avogadro's Constant	The number of atoms in 1M (6.02×10^{23})
10	Conservation of Mass	In a reaction the mass of products = mass of reactants.

Week 9 20/06/22	Piece of Information	Answer
1	Joule	The unit for work done (J).
2	Dissipate	When energy is not transferred to useful energy stores, and is lost.

3	Power	The rate at which energy is transferred. Measured in Watts.
4	Efficiency	A way of expressing the proportion of energy that is usefully transferred.
5	Scalar Quantity	A quantity with magnitude and no direction.
6	Vector Quantity	A quantity with both magnitude and direction.
7	Velocity	A vector - a speed in a defined direction. Unit is m/s.
8	Displacement	A vector - a distance travelled in a defined direction. Unit is m.
9	Directly proportional	Diagonal straight line from the origin on a graph.
10	Carbon footprint	The amount of carbon dioxide and other greenhouse gases given out over the full life cycle of a product, service or event.

Week 10 27/06/22	Piece of Information	Answer
1	Isotopes	Different forms of a particular element (same number of protons but different numbers of neutrons).
2	Subatomic particles	Protons and neutrons are found in the nucleus which is surrounded by orbiting electrons.
3	Alpha Particle Scattering Experiment	An experiment that showed that the mass of the atom is concentrated at its centre (in the nucleus).
4	Nuclear Model	Suggested by Niels Bohr; electrons move around the nucleus in circular orbits at specific distances from the nucleus.
5	Half Life	The time taken for the number of nuclei in a radioactive isotope to halve.
6	Life cycle assessment	An examination of the impact of a product on the environment throughout its life.
7	Value judgement	An assessment of a situation that may be subjective based on a person's opinions and/or values.
8	Potable water	Water that is safe to drink.
9	Desalination	A process to remove dissolved substances (salt) from sea water.
10	Ore	A rock from which a metal can be extracted for profit.

Maths Knowledge Organiser Foundation – Mondays

Week 1 04/04/22	Piece of Information	Answer
1	3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36	First 12 multiples of 3
2	2, 3, 5, 7, 11, 13, 17, 19, 23, 29	First 10 prime numbers
3	Factor	A factor is a number that divides into another number exactly and without leaving a remainder, e.g. the factors of 12 are 1,2,3,4,6,12
4	Prime	A prime number is a whole number greater than 1 with only two factors – itself and 1: it cannot be divided by any other positive integers without leaving a remainder, decimal or fraction. 11, 19 and 2 are examples of prime numbers.
5	Multiple	A multiple of a number is the result when that number is multiplied by an integer. Eg multiples of 14 could be 14 (14 x 1), 28 (14 x 2) or 140 (14 x 10).
6	4, 8, 12, 16, 20, 24, 28, 32, 26, 40, 44, 48	First 12 multiples of 4
7	Square number	A square number is the result when a number has been multiplied by itself. For example, 25 is a square number because it's 5 lots of 5, or 5 x 5. This is also written as 5^2("five squared").
8	Lowest common multiple	The smallest multiple shared between two given numbers. For example, the LCM of 9 and 12 is 36 as it is the smallest multiple that both given numbers share (9 x 4 = 36 and 12 x 3 = 36).
9	Highest Common Factor	The highest common factor is the largest whole number which is shared by given numbers. For example, common factors of 10 and 20 are 1, 2, 5 and 10, but the highest of those is 10; therefore, the HCF of 10 and 20 is 10.
10	Prime factorisation	The process of breaking down a number into a set of prime numbers, which when multiplied together give the original number. E.g. 36 = 2 × 2 × 3 × 3.

Week 2 25/04/22	Piece of Information	Answer
1	6, 12, 18, 24, 30, 36, 42, 28, 54, 60, 66, 72	First 12 multiples of 6
2	Sum	The result of adding two or more numbers together.
3	Difference	The result of subtracting one number from another; the difference in quantity between two numbers.
4	Product	The number that you get by multiplying two or more numbers together. For example, if you multiply 2 and 5 together, you get a product of 10.

5	Quotient	The number resulting from dividing one number by another.
6	7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84	First 12 multiples of 7
7	Mean	An average that can be found by dividing the sum of all the values by the number of values.
8	Median	The middle value in an ordered list of numbers.
9	Mode	The most frequently occuring value in a data set.
10	Range	The difference between the lowest and highest values in a set of data.

Week 3 02/05/22	Piece of Information	Answer
1	8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96	First 12 multiples of 8
2	Factorise	To find the factors of an expression; the reverse of expanding brackets.
3	Expand	To multiply each term in the brackets by the expression outside the brackets; the reverse process of factorisation and is sometimes referred to as multiplying out.
4	Reciprocal	1 divided by a given number
5	Inequality	An inequality compares two values, showing if one is less than, greater than, or simply not equal to another value: $a \neq b$ says that a is not equal to b; $a < b$ says that a is less than b; $a > b$ says that a is greater than b; $a \leq b$ means that a is less than or equal to b; and $a \geq b$ means that a is greater than or equal to b.
6	3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36	First 12 multiples of 3
7	2, 3, 5, 7, 11, 13, 17, 19, 23, 29	First 10 prime numbers
8	Factor	A factor is a number that divides into another number exactly and without leaving a remainder, e.g. the factors of 12 are 1,2,3,4,6,12
9	Prime	A prime number is a whole number greater than 1 with only two factors – itself and 1: it cannot be divided by any other positive integers without leaving a remainder, decimal or fraction. 11,19 and 2 are examples of prime numbers.
10	Multiple	A multiple of a number is the result when that number is multiplied by an integer. E.g multiples of 14 could be 14 (14 x 1), 28 (14 x 2) or 140 (14 x 10).

Week 4 09/05/22	Piece of Information	Answer
1	8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96	First 12 multiples of 8

2	Parallel	To remain equidistant (the same distance apart) and never meet or touch.
3	Perpendicular	A surface or line at an angle of 90° to another line or surface.
4	Similar	Identical in shape but different in size; angles remain the same.
5	Congruent	Of exactly the same shape, size and dimensions.
6	4, 8, 12, 16, 20, 24, 28, 32, 26, 40, 44, 48	First 12 multiples of 4
7	Square number	A square number is the result when a number has been multiplied by itself. For example, 25 is a square number because it's 5 lots of 5, or 5 x 5. This is also written as 5^2 ("five squared").
8	Lowest common multiple	The smallest multiple shared between two given numbers. For example, the LCM of 9 and 12 is 36 as it is the smallest multiple that both given numbers share (9 x 4 = 36 and 12 x 3 = 36).
9	Highest Common Factor	The highest common factor is the largest whole number which is shared by given numbers. For example, common factors of 10 and 20 are 1, 2, 5 and 10, but the highest of those is 10; therefore, the HCF of 10 and 20 is 10.
10	Prime factorisation	The process of breaking down a number into a set of prime numbers, which when multiplied together give the original number. E.g. 36 = 2 × 2 × 3 × 3.

Week 5 16/05/22	Piece of Information	Answer
1	11, 22, 33, 44, 55, 66, 77, 88, 99, 110, 121, 132	First 12 multiples of 11
2	Integer	A whole number that can be positive or negative, but does not have fractions or decimals.
3	Rational	A number that can be in the form p/q where p and q are integers and q is not equal to zero.
4	Irrational	A real number that can not be made by dividing two integers: its decimal also goes on forever without repeating E.g. π
5	Surd	An irrational number which is the roots of a positive integer where the value of the root can't be determined; it has infinite non-recurring decimals. e.g $\sqrt{5}$
6	6, 12, 18, 24, 30, 36, 42, 28, 54, 60, 66, 72	First 12 multiples of 6
7	Sum	The result of adding two or more numbers together.
8	Difference	The result of subtracting one number from another; the difference in quantity between two numbers.
9	Product	The number that you get by multiplying two or more numbers together. For example, if you multiply 2 and 5 together, you get a

		product of 10.
10	Quotient	The number resulting from dividing one number by another.

Week 6 23/05/22	Piece of Information	Answer
1	12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144	First 12 multiples of 12
2	Perimeter	The distance around the outside of a 2D shape; calculated by adding the length of all the sides together.
3	Area	The measurement of a space inside a 2D shape, measured in units squared.
4	Volume	The amount of space inside a three-dimensional shape
5	Surface area	The total area of the surface of a 3D shape; the sum of the area of all the faces on a 3D shape.
6	7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84	First 12 multiples of 7
7	Mean	An average that can be found by dividing the sum of all the values by the number of values.
8	Median	The middle value in an ordered list of numbers.
9	Mode	The most frequently occuring value in a data set.
10	Range	The difference between the lowest and highest values in a set of data.

Week 7 06/06/22	Piece of Information	Answer
1	Equation	A mathematical expression that contains an equals symbol.
2	Expression	A mathematical phrase combining numbers and/or variables and mathematical operations but with no equals sign.
3	Formula	A mathematical rule written using symbols, usually as an equation describing a certain relationship between quantities.
4	Direct proportion	The relationship between two quantities whose ratio remains constant as quantities increase or decrease; one variable varies directly in line with another.
5	Inverse proportion	The relationship between two quantities where as one quantity increases, the other decreases in proportion; the relationship between two quantities whose product remains the same.
6	8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96	First 12 multiples of 8
7	Factorise	To find the factors of an expression; the reverse of expanding brackets.
8	Expand	To multiply each term in the brackets by the expression outside the

		brackets; the reverse process of factorisation and is sometimes referred to as multiplying out.
9	Reciprocal	1 divided by a given number
10	Inequality	An inequality compares two values, showing if one is less than, greater than, or simply not equal to another value: $a \neq b$ says that a is not equal to b; $a < b$ says that a is less than b; $a > b$ says that a is greater than b; $a \leq b$ means that a is less than or equal to b; and $a \geq b$ means that a is greater than or equal to b.

Week 8 13/06/22	Piece of Information	Answer
1	Transformation	A geometric change in position where figures remain congruent; or a geometric change in size (enlargement) where the shape remains similar so that the only variation is the size.
2	Enlargement	A geometric transformation whereby a shape is made larger (or smaller if reversed) without changing its shape, position or direction.
3	Rotation	A geometric transformation where an object is turned around a defined point.
4	Translation	A geometric transformation to move an object or shape in any direction without rotating it and maintaining its congruence.
5	Reflection	A geometric transformation where a shape is flipped over a line of reflection (mirror line) such that its shape does not change but it faces the opposite direction.
6	8, 16, 24, 32, 40, 48, 56, 64, 72, 80, 88, 96	First 12 multiples of 8
7	Parallel	To remain equidistant (the same distance apart) and never meet or touch.
8	Perpendicular	A surface or line at an angle of 90° to another line or surface.
9	Similar	Identical in shape but different in size; angles remain the same.
10	Congruent	Of exactly the same shape, size and dimensions.

Week 9 20/06/22	Piece of Information	Answer
1	11, 22, 33, 44, 55, 66, 77, 88, 99, 110, 121, 132	First 12 multiples of 11
2	Integer	A whole number that can be positive or negative, but does not have fractions or decimals.
3	Rational	A number that can be in the form p/q where p and q are integers and q is not equal to zero.
4	Irrational	A real number that can not be made by dividing two integers: its decimal also goes on forever without repeating E.g. π

5	Surd	An irrational number which is the roots of a positive integer where the value of the root can't be determined; it has infinite non-recurring decimals. E.g $\sqrt{5}$
6	12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144	First 12 multiples of 12
7	Perimeter	The distance around the outside of a 2D shape; calculated by adding the length of all the sides together.
8	Area	The measurement of a space inside a 2D shape, measured in units squared.
9	Volume	The amount of space inside a three-dimensional shape
10	Surface area	The total area of the surface of a 3D shape; the sum of the area of all the faces on a 3D shape.

Week 10 27/06/22	Piece of Information	Answer
1	Equation	A mathematical expression that contains an equals symbol.
2	Expression	A mathematical phrase combining numbers and/or variables and mathematical operations but with no equals sign.
3	Formula	A mathematical rule written using symbols, usually as an equation describing a certain relationship between quantities.
4	Direct proportion	The relationship between two quantities whose ratio remains constant as quantities increase or decrease; one variable varies directly in line with another.
5	Inverse proportion	The relationship between two quantities where as one quantity increases, the other decreases in proportion; the relationship between two quantities whose product remains the same.
6	Transformation	A geometric change in position where figures remain congruent; or a geometric change in size (enlargement) where the shape remains similar so that the only variation is the size.
7	Enlargement	A geometric transformation whereby a shape is made larger (or smaller if reversed) without changing its shape, position or direction.
8	Rotation	A geometric transformation where an object is turned around a defined point.
9	Translation	A geometric transformation to move an object or shape in any direction without rotating it and maintaining its congruence.
10	Reflection	A geometric transformation where a shape is flipped over a line of reflection (mirror line) such that its shape does not change but it faces the opposite direction.

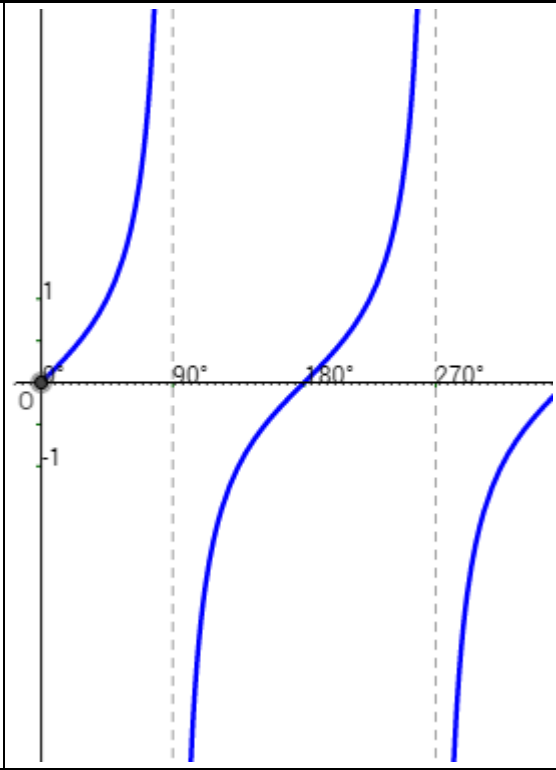
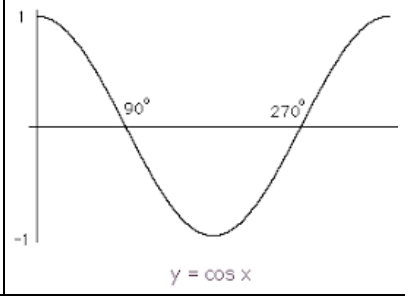
Maths Knowledge Organiser Higher - Mondays

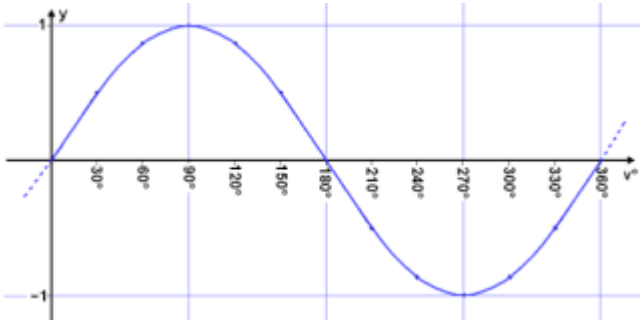
Week 1 04/04/22	Piece of Information	Answer
1	All the factors of 20	1,2,4,5,10,20
2	$a^2 + b^2 = c^2$	This is Pythagoras' Theorem.
3	Hypotenuse	The side opposite the right angle for a right angle triangle. It is also the longest side in the triangle.
4	Circumference	The perimeter (distance around the outside) of a circle.
5	Diameter	A straight line passing through the centre of a circle touching opposite sides of the circumference; equal to twice the radius.
6	Radius	The distance from the centre of a circle to any point on its circumference (edge); equal to half the diameter of the circle.
7	$A = \pi r^2$	Formula to calculate the area of a circle.
8	$C=2\pi r$	Formula for the circumference of a circle.
9	Congruent	Of exactly the same shape, size and dimensions.
10	The conditions for congruence	SSS, SAS, ASA, RHS

Week 2 25/04/22	Piece of Information	Answer
1	$A \cap B$	A intersection B
2	$A \cup B$	A union B
3	Prime number	A number with exactly two factors
4	Cos(60) and Sin(30) are both equal to	0.5
5	Cos(30) and Sin(60) are both equal to	$\sqrt{3}/2$
6	Tan(45) =	1
7	Cos(45) and sin(45)	$1/\sqrt{2} = \sqrt{2}/2$
8	Tan(30)	$1/\sqrt{3} = \sqrt{3}/3$
9	Tan(6)	$\sqrt{3}$
10	Product	The number that you get by multiplying two or more numbers together. For example, if you multiply 2 and 5 together, you get a product of 10.

Week 3 02/05/22	Piece of Information	Answer
1	7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84	First 12 multiples of 7.

2	Mean	An average that can be found by dividing the sum of all the values by the number of values.
3	Median	The middle value in an ordered list of numbers.
4	Mode	The most frequently occuring value in a data set.
5	Range	The difference between the lowest and highest values in a set of data.
6	All the factors of 20	1,2,4,5,10,20
7	$a^2 + b^2 = c^2$	This is Pythagoras' Theorem.
8	Hypotenuse	The side opposite the right angle for a right angle triangle. It is also the longest side in the triangle.
9	Circumference	The perimeter (distance around the outside) of a circle.
10	Diameter	A straight line passing through the centre of a circle touching opposite sides of the circumference; equal to twice the radius.

Week 4 09/05/22	Piece of Information	Answer
1	Tan Graph	
2	Cos Graph	

3	Sin Graph	
4	Prime factorisation	The process of breaking down a number into a set of prime numbers, which when multiplied together give the original number. E.g. 36 = 2 × 2 × 3 × 3.
5	The only even prime number	2
6	Radius	The distance from the centre of a circle to any point on its circumference (edge); equal to half the diameter of the circle.
7	$A = \pi r^2$	Formula to calculate the area of a circle.
8	$C=2\pi r$	Formula for the circumference of a circle.
9	Congruent	Of exactly the same shape, size and dimensions.
10	The conditions for congruence	SSS, SAS, ASA, RHS

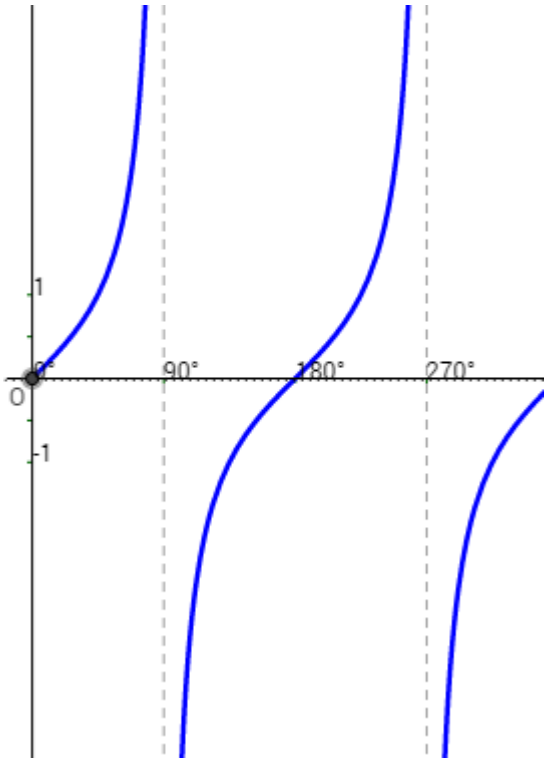
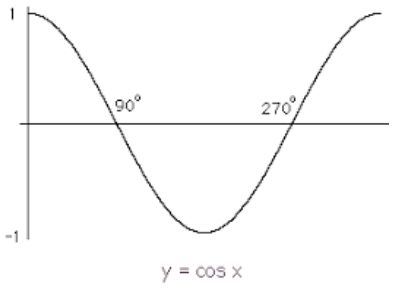
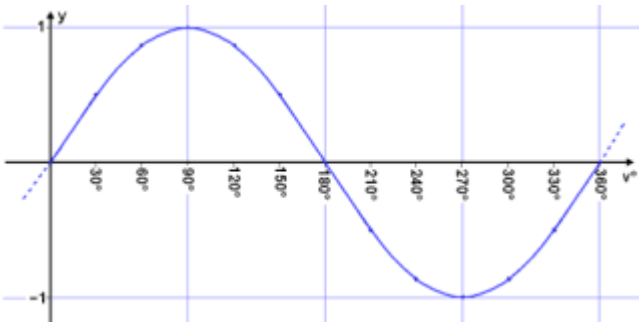
Week 5 16/05/22	Piece of Information	Answer
1	Median	The "middle" of a sorted list of numbers.
2	Lower Quartile	The median of the upper half of a data set.
3	Upper Quartile	The median of the upper half of a data set.
4	Interquartile Range	Describes the middle 50% of values. This is obtained by doing Upper quartile subtract the lower quartile.
5	Example of square numbers that are also cube numbers	1 and 64
6	A ∩ B	A intersection B
7	A ∪ B	A union B
8	Prime number	A number with exactly two factors
9	Cos(60) and Sin(30) are both equal to	0.5
10	Cos(30) and Sin(60) are both equal to	$\sqrt{3}/2$

Week 6 23/05/22	Piece of Information	Answer
1	parallel	To remain equidistant (the same distance apart) and never meet or touch. i.e. if two lines have the same gradient.

2	perpendicular	A surface or line at an angle of 90° to another line or surface
3	similar	Identical in shape but different in size; angles remain the same
4	transformation	A geometric change in position where figures remain congruent; or a geometric change in size (enlargement) where the shape remains similar so that the only variation is the size.
5	Two examples of pythagorean triples	3,4,5 & 5,12,13
6	Tan(45) =	1
7	Cos(45) and sin(45)	$1/\sqrt{2} = \sqrt{2}/2$
8	Tan(30)	$1/\sqrt{3} = \sqrt{3}/3$
9	Tan(6)	$\sqrt{3}$
10	Product	The number that you get by multiplying two or more numbers together. For example, if you multiply 2 and 5 together, you get a product of 10.

Week 7 06/06/22	Piece of Information	Answer
1	How to represent an even number algebraically	2n
2	How to represent an odd number algebraically	2n+1
3	Cosine Rule	$a^2 = b^2 + c^2 - 2bcCos(A)$
4	Sine Rule	$\frac{a}{sinA} = \frac{b}{SinB} = \frac{c}{sinC}$
5	Area of a triangle when SAS is known	$Area = \frac{1}{2}abSinC$
6	7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84	First 12 multiples of 7.
7	Mean	An average that can be found by dividing the sum of all the values by the number of values.
8	Median	The middle value in an ordered list of numbers.
9	Mode	The most frequently occuring value in a data set.
10	Range	The difference between the lowest and highest values in a set of data.

Week 8 13/06/22	Piece of Information	Answer

1	Volume	The amount of space inside a three-dimensional shape
2	Surface area	The total area of the surface of a 3D shape; the sum of the area of all the faces on a 3D shape.
3	The lowest common multiple of 12 and 10	60
4	rational	A number that can be in the form p/q where p and q are integers and q is not equal to zero.
5	irrational	A real number that can not be made by dividing two integers: its decimal also goes on forever without repeating e.g. π & $\sqrt{2}$
6	Tan Graph	
7	Cos Graph	
8	Sin Graph	
9	Prime factorisation	The process of breaking down a number into a set of prime numbers, which when multiplied together give the original number.

		E.g. 36 = 2 × 2 × 3 × 3.
10	The only even prime number	2

Week 9 20/06/22	Piece of Information	Answer
1	Median	The "middle" of a sorted list of numbers.
2	Lower Quartile	The median of the upper half of a data set.
3	Upper Quartile	The median of the upper half of a data set.
4	Interquartile Range	Describes the middle 50% of values. This is obtained by doing Upper quartile subtract the lower quartile.
5	Example of square numbers that are also cube numbers	1 and 64
6	parallel	To remain equidistant (the same distance apart) and never meet or touch. i.e. if two lines have the same gradient.
7	perpendicular	A surface or line at an angle of 90° to another line or surface
8	similar	Identical in shape but different in size; angles remain the same
9	transformation	A geometric change in position where figures remain congruent; or a geometric change in size (enlargement) where the shape remains similar so that the only variation is the size.
10	Two examples of pythagorean triples	3,4,5 & 5,12,13

Week 10 27/06/22	Piece of Information	Answer
1	How to represent an even number algebraically	2n
2	How to represent an odd number algebraically	2n+1
3	Cosine Rule	$a^2 = b^2 + c^2 - 2bcCos(A)$
4	Sine Rule	$\frac{a}{sinA} = \frac{b}{SinB} = \frac{c}{sinC}$
5	Area of a triangle when SAS is known	$Area = \frac{1}{2}abSinC$
6	Volume	The amount of space inside a three-dimensional shape
7	Surface area	The total area of the surface of a 3D shape; the sum of the area of all the faces on a 3D shape

8	The lowest common multiple of 12 and 10	60
9	rational	A number that can be in the form p/q where p and q are integers and q is not equal to zero.
10	irrational	A real number that can not be made by dividing two integers: its decimal also goes on forever without repeating E.g. π & $\sqrt{2}$

English Language Knowledge Organiser - Tuesdays

Week 1 05/04/22	Piece of Information	Answer
1	Anecdote	A short story used to make a larger point. It adds a storytelling touch to your explanatory or persuasive writing—connecting your ideas to real life.
2	Personal pronouns	A short word we use as a simple substitute for the proper name of a person. E.g. you, he, she, it, we they, me, him, her, us.
3	Direct address	When a speaker is talking personally to an individual or group.
4	Anaphora	Repetition of a word or expression at the beginning of a group of sentences.
5	Analogy	A comparison between one thing and another, typically for the purpose of explanation or clarification.
6	Anecdote	A short story used to make a larger point. It adds a storytelling touch to your explanatory or persuasive writing—connecting your ideas to real life.
7	Personal pronouns	A short word we use as a simple substitute for the proper name of a person. E.g. you, he, she, it, we they, me, him, her, us.
8	Direct address	When a speaker is talking personally to an individual or group.
9	Anaphora	Repetition of a word or expression at the beginning of a group of sentences.
10	Analogy	A comparison between one thing and another, typically for the purpose of explanation or clarification.

Week 2 26/04/22	Piece of Information	Answer
1	Prodigious	Remarkably or impressively great in extent, size, or degree.
2	Affinity	A natural liking for and understanding of someone or something.
3	Consensus	A general agreement.
4	Laudable	(Of an action, idea, or aim) deserving praise.
5	Notorious	To be famous or well known, typically for some bad quality or deed.
6	Presumption	The act of believing that something is true without having any proof.
7	Denounce	To publicly declare something or someone to be wrong or evil.
8	Unprecedented	Something never done or known before.
9	Aspersion	An attack on the reputation or integrity of someone or something.
10	Unwavering	Steady, fixed or firm

Week 3 03/05/22	Piece of Information	Answer
1	Zeal	To show great energy or enthusiasm.
2	Invariably	To mean always or every time.
3	Idyllic	Something that is pleasing or picturesque (attractive).
4	Approximately	Used to show that something is almost, but not completely, accurate or exact.
5	Fervently	Enthusiastically or passionately
6	Anecdote	A short story used to make a larger point. It adds a storytelling touch to your explanatory or persuasive writing—connecting your ideas to real life.
7	Personal pronouns	A short word we use as a simple substitute for the proper name of a person.
8	Direct address	When a speaker is talking personally to an individual or group.
9	Anaphora	Repetition of a word or expression at the beginning of a group of sentences.

10	Analogy	A comparison between one thing and another, typically for the purpose of explanation or clarification.

Week 4 10/05/22	Piece of Information	Answer
1	Candid	To be truthful and straightforward
2	Vivacity	To be lively or very animated
3	Panacea	A solution or remedy for all difficulties or diseases.
4	Intrepid	To be fearless
5	Ascertain	To find something out for certain or to make sure of something
6	Anecdote	A short story used to make a larger point. It adds a storytelling touch to your explanatory or persuasive writing—connecting your ideas to real life.
7	Personal pronouns	A short word we use as a simple substitute for the proper name of a person
8	Direct address	When a speaker is talking personally to an individual or group.
9	Anaphora	Repetition of a word or expression at the beginning of a group of sentences.
10	Analogy	A comparison between one thing and another, typically for the purpose of explanation or clarification.

Week 5 17/05/22	Piece of Information	Answer
1	Detrimental	Tending to cause harm
2	Appalling	To be horrific or shocking
3	Salient	Most noticeable or important
4	Compel	To force or oblige (someone) to do something
5	Plethora	A large or excessive amount of something
6	Prodigious	Remarkably or impressively great in extent, size, or degree
7	Affinity	A natural liking for and understanding of someone or something
8	Consensus	A general agreement
9	Laudable	(Of an action, idea, or aim) deserving praise
10	Notorious	To be famous or well known, typically for some bad quality or deed

Week 6 24/05/22	Piece of Information	Answer
1	Deficient	Not having enough of a specified quality or ingredient
2	Exorbitant	An unreasonably high price for something
3	Utterly	This is another word for absolutely
4	Incomprehensible	Not able to be understood
5	Myriad	A countless or extremely great number of people or things
6	Presumption	The act of believing that something is true without having any proof
7	Denounce	To publicly declare something or someone to be wrong or evil
8	Unprecedented	Something never done or known before
9	Aspersion	An attack on the reputation or integrity of someone or something
10	Unwavering	Steady, fixed or firm

Week 7 07/06/22	Piece of Information	Answer

1	Egregious	Outstandingly bad or shocking
2	Erroneous	Wrong or incorrect
3	Engenders	To cause or give rise to (a feeling, situation, or condition).
4	Advantageous	Something that increases chances of success or effectiveness, something beneficial
5	Galvanise	To shock or excite (someone) into taking action
6	Zeal	To show great energy or enthusiasm
7	Invariably	To mean always or every time
8	Idyllic	Something that is pleasing or picturesque (attractive)
9	Approximately	Used to show that something is almost, but not completely, accurate or exact
10	Fervently	Enthusiastically or passionately

Week 8 14/06/22	Piece of Information	Answer
1	Substantiate	To provide evidence to support or prove the truth of something
2	Superfluous	Unnecessary, especially through being more than enough
3	Impeccable	To be flawless, or excellent in quality
4	Inept	Having or showing no skill, to be clumsy
5	Inhibit	To prevent an action or process, to hold something or someone back
6	Candid	To be truthful and straightforward
7	Vivacity	To be lively or very animated
8	Panacea	A solution or remedy for all difficulties or diseases
9	Intrepid	To be fearless
10	Ascertain	To find something out for certain or to make sure of something

Week 9 21/06/22	Piece of Information	Answer
1	Detrimental	Tending to cause harm
2	Appalling	To be horrific or shocking
3	Salient	Most noticeable or important.
4	Compel	To force or oblige (someone) to do something
5	Plethora	A large or excessive amount of something
6	Deficient	Not having enough of a specified quality or ingredient
7	Exorbitant	An unreasonably high price for something
8	Utterly	This is another word for absolutely
9	Incomprehensible	Not able to be understood
10	Myriad	A countless or extremely great number of people or things

Week 10 28/06/22	Piece of Information	Answer
1	Egregious	Outstandingly bad or shocking
2	Erroneous	Wrong or incorrect
3	Engenders	To cause or give rise to (a feeling, situation, or condition)
4	Advantageous	Something that increases chances of success or effectiveness, something beneficial
5	Galvanise	To shock or excite (someone) into taking action

6	Substantiate	To provide evidence to support or prove the truth of something
7	Superfluous	Unnecessary, especially through being more than enough
8	Impeccable	To be flawless, or excellent in quality
9	Inept	Having or showing no skill, to be clumsy
10	Inhibit	To prevent an action or process, to hold something or someone back

English Literature Knowledge Organiser - Tuesdays

Week 1 105/04/22	Piece of Information	Answer
1	Benevolent	Well meaning and kindly. Synonym: compassionate
2	Malevolent	Having or showing a wish to do evil to others. Synonym: spiteful
3	Solitary	To exist alone. Synonym: reclusive
4	Implore	To beg someone earnestly or desperately to do something. Synonym: beseech
5	Indignant	Feeling or showing anger or annoyance at what is seen as unfair treatment. Synonym: resentful
6	Cordial	Warm and friendly. Synonym: pleasant
7	Destitute	Extremely poor and lacking the means to provide for oneself. Synonym: impoverished
8	Facetious	Treating serious issues with deliberately inappropriate humour. Synonym: flippant
9	Inexplicable	Unable to be explained. Synonym: unfathomable
10	Parsimonious	Unwilling to spend money or use resources. Synonym: miserly

Week 2 26/04/22	Piece of Information	Answer
1	Misanthropic	Disliking people in general and having an anti-social, bad attitude. Synonym: unsocial
2	Supplication	The action of asking or begging for something earnestly or humbly. Synonym: plea
3	Didacticism	A type of literature that is written to inform or instruct the reader, as well as entertain.
4	Repentance	Sincere regret (feeling bad about something) Synonym: remorse.
5	Magnanimous	To be generous or forgiving, especially towards a rival or less powerful person. Synonym: munificent
6	Allegory	A story, poem, or picture that has a hidden meaning, typically a moral or political one.
7	Antithesis	A person or thing that is the direct opposite of someone or something else.
8	Caricature	A description, or imitation of a person which exaggerates characteristics in someone for a comic or grotesque effect.
9	Satire	The use of humour, irony, exaggeration, or ridicule to expose or criticise people's stupidity or vices.
10	Thomas Malthus (Malthusian)	An economist who thought the population was growing faster than food was available, and so starvation and disease were a natural cure to the problem.

Week 3 03/05/22	Piece of Information	Answer
1	Stanza	A group of lines in a poem.
2	Enjambment	When the meaning in a line of poetry runs from one line into the next, with no punctuation at the end of the line.
3	Caesura	A piece of punctuation used in the middle of a line of poetry.
4	Assonance	The repetition of the same or similar vowel sounds within words, phrases, or sentences. E.g.: the long "o" in the words "soak", "know" and "grow".
5	Volta	In poetry, this is a turn, shift or dramatic change in thought and/or emotion.
6	Benevolent	Well meaning and kindly. Synonym: compassionate

7	Malevolent	Having or showing a wish to do evil to others. Synonym: spiteful
8	Solitary	To exist alone. Synonym: reclusive
9	Implore	To beg someone earnestly or desperately to do something. Synonym: beseech
10	Indignant	Feeling or showing anger or annoyance at what is seen as unfair treatment. Synonym: resentful

Week 4 10/05/22	Piece of Information	Answer
1	Refrain	A line or lines that are repeated in music or in poetry.
2	Dramatic monologue	A type of poem in which a speaker addresses an internal listener or the reader.
3	Narrative poem	A poem that tells a story.
4	Allusion	A figure of speech that refers to a famous person, place, or historical event—either directly or through implication.
5	Free verse	Poetry that does not rhyme or have a regular rhythm.
6	Cordial	Warm and friendly. Synonym: pleasant
7	Destitute	Extremely poor and lacking the means to provide for oneself. Synonym: impoverished
8	Facetious	Treating serious issues with deliberately inappropriate humour. Synonym: flippant
9	Inexplicable	Unable to be explained. Synonym: unfathomable
10	Parsimonious	Unwilling to spend money or use resources. Synonym: miserly

Week 5 17/05/22	Piece of Information	Answer
1	In media res	Starting a poem or narrative (story) in the middle of the action, with no introduction.
2	Poetic structure	You will be asked to comment on this, describe a change in the poem from how it begins to how it ends - is there a change in mood, emotion or feeling?
3	Effects of regular rhyme	Depending on what the poem it could suggest: something ongoing, everlasting, repetitive, complete, a feeling of consistency or imprisonment.
4	Effects of free verse	Depending on what the poem it could suggest: lack of control, freedom, instability, or it can sound more narrative, like a story or spoken word.
5	Effects of irregular rhyme	Depending on what the poem it could suggest: something transient (non-lasting), a lack of connection, something incomplete, unpredictability.
6	Misanthropic	Disliking people in general and having an anti-social, bad attitude. Synonym: unsocial
7	Supplication	The action of asking or begging for something earnestly or humbly. Synonym: plea
8	Didacticism	A type of literature that is written to inform or instruct the reader, as well as entertain.
9	Repentance	Sincere regret (feeling bad about something) Synonym: remorse.
10	Magnanimous	To be generous or forgiving, especially towards a rival or less powerful person. Synonym: munificent

Week 6 24/05/22	Piece of Information	Answer
1	Hamartia (noun)	A fatal flaw leading to the downfall of a tragic hero or heroine.

2	Hubris (noun)	Excessive pride or self-confidence.
3	Machiavellian (adj)	Cunning, scheming, and unscrupulous, especially in politics.
4	Emasculate (verb)	Make (someone or something, usually a man) feel weaker or less effective.
5	Fatal flaw (noun)	An imperfection in someone's character is an undesirable quality that they have.
6	Allegory	A story, poem, or picture that has a hidden meaning, typically a moral or political one.
7	Antithesis	A person or thing that is the direct opposite of someone or something else.
8	Caricature	A description, or imitation of a person which exaggerates characteristics in someone for a comic or grotesque effect.
9	Satire	The use of humour, irony, exaggeration, or ridicule to expose or criticise people's stupidity or vices.
10	Thomas Malthus (Malthusian)	An economist who thought the population was growing faster than food was available, and so starvation and disease were a natural cure to the problem.

Week 7 07/06/22	Piece of Information	Answer
1	Exploit (verb)	To take advantage of someone in an unfair way. Synonyms: abuse, manipulate, misuse
2	Heinous (adj)	(About a person's actions) to be utterly wicked,evil or shocking. Synonyms: abhorrent, atrocious, despicable
3	Regicide (noun)	The action of killing a King. Synonyms: execution, murder, slaying/Macbeth slays
4	Valour (noun)	To show great courage in the face of danger, especially in battle. Synonyms: Daring, Macbeth shows heroism, courage
5	Sceptical (adj)	To be unconvinced, having doubts or reservations. Synonyms: Doubtful, dubious, mistrustful
6	Stanza	A group of lines in a poem.
7	Enjambment	When the meaning in a line of poetry runs from one line into the next, with no punctuation at the end of the line.
8	Caesura	A piece of punctuation used in the middle of a line of poetry.
9	Assonance	The repetition of the same or similar vowel sounds within words, phrases, or sentences. E.g.: the long "o" in the words "soak", "know" and "grow".
10	Volta	In poetry, this is a turn, shift or dramatic change in thought and/or emotion.

Week 8 14/06/22	Piece of Information	Answer
1	Ambition (noun)	A strong desire to achieve something. Synonyms: to desire, to have motivation, to yearn for.
2	Usurp (verb)	To take (a position of power or importance) illegally by force. Synonyms: to overthrow, to seize, wrest e.g. Macbeth wrest the throne.
3	Equivocate (verb)	To use ambiguous (unclear language) to conceal the truth. Synonyms: to be evasive, to prevaricate, to be vague.
4	Malevolent (adj)	Having and showing a wish to do evil to others. Synonyms: malicious, spiteful, vindictive.
5	Duplicitous (adj)	To be deceitful (a liar) or dishonest. Synonyms: Devious,

		unscrupulous, wily.
6	Refrain	A line or lines that are repeated in music or in poetry.
7	Dramatic monologue	A type of poem in which a speaker addresses an internal listener or the reader.
8	Narrative poem	A poem that tells a story.
9	Allusion	A figure of speech that refers to a famous person, place, or historical event—either directly or through implication.
10	Free verse	Poetry that does not rhyme or have a regular rhythm.

Week 9 21/06/22	Piece of Information	Answer
1	In media res	Starting a poem or narrative (story) in the middle of the action, with no introduction.
2	Poetic structure	You will be asked to comment on this, describe a change in the poem from how it begins to how it ends - is there a change in mood, emotion or feeling?
3	Effects of regular rhyme	Depending on what the poem it could suggest: something ongoing, everlasting, repetitive, complete, a feeling of consistency or imprisonment.
4	Effects of free verse	Depending on what the poem it could suggest: lack of control, freedom, instability, or it can sound more narrative, like a story or spoken word.
5	Effects of irregular rhyme	Depending on what the poem it could suggest: something transient (non-lasting), a lack of connection, something incomplete, unpredictability.
6	Hamartia (noun)	A fatal flaw leading to the downfall of a tragic hero or heroine.
7	Hubris (noun)	Excessive pride or self-confidence.
8	Machiavellian (adj)	Cunning, scheming, and unscrupulous, especially in politics.
9	Emasculate (verb)	Make (someone or something, usually a man) feel weaker or less effective.
10	Fatal flaw (noun)	An imperfection in someone's character is an undesirable quality that they have.

Week 10 28/06/22	Piece of Information	Answer
1	Exploit (verb)	To take advantage of someone in an unfair way. Synonyms: abuse, manipulate, misuse.
2	Heinous (adj)	(About a person's actions) to be utterly wicked,evil or shocking. Synonyms: abhorrent, atrocious, despicable.
3	Regicide (noun)	The action of killing a King. Synonyms: execution, murder, slaying/Macbeth slays.
4	Valour (noun)	To show great courage in the face of danger, especially in battle. Synonyms: Daring, Macbeth shows heroism, courage.
5	Sceptical (adj)	To be unconvinced, having doubts or reservations. Synonyms: Doubtful, dubious, mistrustful.
6	Ambition (noun)	A strong desire to achieve something. Synonyms: to desire, to have motivation, to yearn for.
7	Usurp (verb)	To take (a position of power or importance) illegally by force. Synonyms: to overthrow, to seize, wrest E.g. Macbeth wrest the throne.
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9	Malevolent (adj)	Having and showing a wish to do evil to others. Synonyms: malicious, spiteful, vindictive.
10	Duplicitous (adj)	To be deceitful (a liar) or dishonest. Synonyms: Devious, unscrupulous, wily.

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 *This is a demonstration of ambition because you are working outside of your comfort zone.*	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 *This is a demonstration of ambition because you are exploring opportunities available to you after Gloucester Academy.*	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 *This is a demonstration of ambition because you are climbing your own personal mountain to the very best universities and professions.*	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 *This is a demonstration of ambition because you are expanding your vocabulary.*	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 *This is a demonstration of excellence because you are representing your school.*	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 *This is a demonstration of excellence because you are helping others.*	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 *This is a demonstration of excellence because you are being a role model to others.*	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 *This is a demonstration of excellence because you have challenged yourself.*	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 *This is a demonstration of pride because you have helped others.*	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 *This is a demonstration of pride because you have dedicated time and effort to something you enjoy.*	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 *This is a demonstration of pride because you are making the world more eco friendly.*	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 *This is a demonstration of pride because you have celebrated all things that make us unique.*	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.		