Curriculum maps with Christian and school ethos links

Subject: Mathematics   Year: 7

Topics and links	Autumn Term		Spring Term		Summer Term	
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
	SHAPE Metric Units Converting metric units 2D shapes - Classifying Area Angles	SHAPE 2D shapes – Perimeter 3D shapes – Classifying 2D representations Volume	NUMBER Decimals – Ordering Written calculations Money – Calculations Best buys Negative Number – Calculations Order of operations – Calculations ALGEBRA Graphs – Axes Coordinates	NUMBER Place value – Ordering Calculating Integers – Written calculations Number types – Factors, Multiples & Primes Types of number Powers & Roots – Squares, cubes and roots SHAPE Measures - Time	ALGEBRA Sequences – Linear sequences SHAPE 3D Shapes – Surface Area Scale – Scale drawing Map scales Transformations – Enlargements	SHAPE Symmetry – Reflective Rotational Transformations – Reflections Rotations Translations Combined transformations
Links with Christian beliefs and spiritual development opportunities	Some quotes "Christianity has been a major influence on the mathematical sciences. There is a widespread belief that Christianity and mathematics were on opposing sides. This, however, oversimplifies things and gives a false impression of the development of the mathematics. For example, four men who perhaps did as much as any to revolutionise mathematics in the 16th and 17th centuries, Copernicus, Kepler, Galileo and Newton, were all deeply religious Christians who saw their scientific work as a religious undertaking. Pythagoras developed a world-view in which mathematics and religion were completely linked. Pythagoras saw the beauty in the theory of numbers and he saw this mathematical beauty translated into musical beauty. From there he developed a view of the world based on numbers and shapes. He believed that the Earth was a sphere, not for any experimental reason, but simply because he believed that the sphere was the most perfect shape, so the Earth had to be a sphere. He also believed that the Earth was not at the centre of the universe but that the Earth moved. The argument is that mathematical laws, in order to be properly relied upon, must have attributes which indicate an origin in God. They are true everywhere (omnipresent), true always (eternal), cannot be defied or defeated (omnipotent), and are rational and have language characteristics (which makes them personal)."					

Links with Sexey's Seven ethos	1. Courage – Becoming confident in new mathematical skills. Being brave enough to answer and ask questions. 2. Forgiveness – Working in pairs, small groups or as a whole class and accepting others' mistakes. Not blaming others for work that goes wrong. 3. Honesty – Being able to admit to mistakes. Being fair when working with others in pairs, small groups or as a whole class. Being truthful about mistakes made. 4. Kindness – Working in pairs, small groups or as part of a whole class and helping others when they find things difficult. 5. Respect – Learning how to behave in a Maths classroom. Showing consideration of others in the classroom. 6. Empathy – Understanding that one's peers are all different. Understanding other's difficulties with mathematics. 7. Resilience – Completing tasks even when they are new and/or difficult. Recovering quickly from setbacks.

Curriculum maps with Christian and school ethos links

Subject: Mathematics   Year: 8

	Autumn Term		Spring Term		Summer Term	
	Unit 1	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**	**Unit 6**
Topics and links	DATA Processing data – Types of data Averages & spread from a list Averages from a frequency table Averages from a grouped frequency table Comparing data sets Box & whisker plots Stem & leaf diagrams	DATA Collecting data - Planning Sampling Presenting & interpreting data – Frequency tables Frequency diagrams	DATA Probability – Theoretical probability Experimental probability Venn diagrams Set notation NUMBER Fractions – Probability fractions	NUMBER Fractions – Understanding fractions Calculating with fractions Percentages – Non-calculator percentages Fractions/Decimals/Percentages – Decimal to percentage and percentage to decimal Fraction to decimal Decimal to fraction Ordering fractions, decimals & percentages	NUMBER Estimation & accuracy – Rounding Estimating & checking Exact calculations Percentages – Calculator percentages Powers & roots – Indices Standard Form	ALGEBRA SITiM – Expressions 1 Expressions 2 Real life formulae Approximate solutions by iteration
Links with Christian beliefs and spiritual development opportunities	Some quotes "Christianity has been a major influence on the mathematical sciences. There is a widespread belief that Christianity and mathematics were on opposing sides. This, however, oversimplifies things and gives a false impression of the development of the mathematics. For example, four men who perhaps did as much as any to revolutionise mathematics in the 16th and 17th centuries, Copernicus, Kepler, Galileo and Newton, were all deeply religious Christians who saw their scientific work as a religious undertaking. Pythagoras developed a world-view in which mathematics and religion were completely linked. Pythagoras saw the beauty in the theory of numbers and he saw this mathematical beauty translated into musical beauty. From there he developed a view of the world based on numbers and shapes. He believed that the Earth was a sphere, not for any experimental reason, but simply because he believed that the sphere was the most perfect shape, so the Earth had to be a sphere. He also believed that the Earth was not at the centre of the universe but that the Earth moved. The argument is that mathematical laws, in order to be properly relied upon, must have attributes which indicate an origin in God. They are true everywhere (omnipresent), true always (eternal), cannot be defied or defeated (omnipotent), and are rational and have language characteristics (which makes them personal)."					

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Curriculum maps with Christian and school ethos links

Subject: Mathematics   Year: 9

	Autumn Term		Spring Term		Summer Term	
	Unit 1	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**	**Unit 6**
Topics and links	NUMBER Ratio & Proportion – Ratio Proportion Measures – Compound measures	ALGEBRA Real-life graphs – Distance-Time Other graphs SITiM – Expressions 3 Expressions 4	ALGEBRA Algebraic manipulation – Expressions Linear equations – Solving Plotting graphs Inequalities – Solving Drawing graphs	DATA Bivariate diagrams – Scatter graphs ALGEBRA Rearranging – Changing the subject Real life formulae Involving factorising	ALGEBRA Rearranging – Changing the subject Graphs – Plotting graphs Reading graphs Coordinates SHAPE Right-angled triangles – Pythagoras	MENSURATION Volume – SHAPE Right-angled triangles – Trigonometry
Links with Christian beliefs and spiritual development opportunities	Some quotes "Christianity has been a major influence on the mathematical sciences. There is a widespread belief that Christianity and mathematics were on opposing sides. This, however, oversimplifies things and gives a false impression of the development of the mathematics. For example, four men who perhaps did as much as any to revolutionise mathematics in the 16th and 17th centuries, Copernicus, Kepler, Galileo and Newton, were all deeply religious Christians who saw their scientific work as a religious undertaking. Pythagoras developed a world-view in which mathematics and religion were completely linked. Pythagoras saw the beauty in the theory of numbers and he saw this mathematical beauty translated into musical beauty. From there he developed a view of the world based on numbers and shapes. He believed that the Earth was a sphere, not for any experimental reason, but simply because he believed that the sphere was the most perfect shape, so the Earth had to be a sphere. He also believed that the Earth was not at the centre of the universe but that the Earth moved. The argument is that mathematical laws, in order to be properly relied upon, must have attributes which indicate an origin in God. They are true everywhere (omnipresent), true always (eternal), cannot be defied or defeated (omnipotent), and are rational and have language characteristics (which makes them personal)."					
Links with Sexey's Seven ethos	1. Courage – Becoming confident in new mathematical skills. Being brave enough to answer and ask questions. 2. Forgiveness – Working in pairs, small groups or as part of a whole class and accepting others' mistakes. Not blaming others for work that goes wrong. 3. Honesty – Being able to admit to mistakes. Being fair when working with others in pairs, small groups or as part of a whole class. Being truthful about mistakes made. 4. Kindness – Working in pairs, small groups or as part of a whole class and helping others when they find things difficult. 5. Respect – Learning how to behave in a Maths classroom. Showing consideration of others in the classroom.					

| | 6. Empathy – Understanding that one's peers are all different. Understanding other's difficulties with mathematics.
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Curriculum maps with Christian and school ethos links

Subject: Mathematics   Year: 10

Topics and links	Autumn Term		Spring Term		Summer Term	
	Unit 1	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**	**Unit 6**
	SHAPE Angles – Angle reasoning Congruency – Congruent shapes Congruent triangles Similarity – Similar shapes Similar triangles Similar areas & volumes Circles – Circle parts Circle theorems	SHAPE Vectors - Vector notation Vector drawings Vector maths Vector geometry Vector equations Mensuration – Circles Surface area	SHAPE Constructions & Loci – Bisectors Triangles Angles Polygons Loci Map scales & bearings – Bearings	SHAPE Scalene triangles – Trigonometry Bearings NUMBER Powers & roots - Fractional & negative indices Surds	ALGEBRA Simultaneous linear equations – Solving Quadratic equations – Plotting Solving	ALGEBRA Graphs – Plotting graphs Equations of circles Recognise & sketch graphs Trig graphs – Plotting trig graphs Recognise & sketch trig graphs Reading trig graphs Transforming graphs – Translations Reflections Stretching Transforming trig graphs
Links with Christian beliefs and spiritual development opportunities	Some quotes "Christianity has been a major influence on the mathematical sciences. There is a widespread belief that Christianity and mathematics were on opposing sides. This, however, oversimplifies things and gives a false impression of the development of the mathematics. For example, four men who perhaps did as much as any to revolutionise mathematics in the 16th and 17th centuries, Copernicus, Kepler, Galileo and Newton, were all deeply religious Christians who saw their scientific work as a religious undertaking. Pythagoras developed a world-view in which mathematics and religion were completely linked. Pythagoras saw the beauty in the theory of numbers and he saw this mathematical beauty translated into musical beauty. From there he developed a view of the world based on numbers and shapes. He believed that the Earth was a sphere, not for any experimental reason, but simply because he believed that the sphere was the most perfect shape, so the Earth had to be a sphere. He also believed that the Earth was not at the centre of the universe but that the Earth moved. The argument is that mathematical laws, in order to be properly relied upon, must have attributes which indicate an origin in God. They are true everywhere (omnipresent), true always (eternal), cannot be defied or defeated (omnipotent), and are rational and have language characteristics (which makes them personal)."					
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	4. Kindness – Working in pairs, small groups or as part of a whole class and helping others when they find things difficult.
	5. Respect – Learning how to behave in a Maths classroom. Showing consideration of others in the classroom.
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Curriculum maps with Christian and school ethos links

Subject: Mathematics   Year: 11

Topics and links	Autumn Term		Spring Term		Summer Term	
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
	DATA Probability – Basic probability & experiments Combined events & probability diagrams Statistics – Sampling Interpreting & representing data Analysing data Misrepresenting data Scatter diagrams Outliers	NUMBER Ratio, Proportion and Rates of Change – Discrete growth & decay ALGEBRA Functions – Language of functions Graphs of equations & functions – Interpreting graphs	SHAPE Plane Isometric Transformations – Transformations Triangle Mensuration – Pythagoras Trigonometry	Revision Gaps filled from previous diagnostic sheets	Revision using past papers and diagnostic sheets from November mocks and then February/March mocks	Revision using past papers
Links with Christian beliefs and spiritual development opportunities	Some quotes "Christianity has been a major influence on the mathematical sciences. There is a widespread belief that Christianity and mathematics were on opposing sides. This, however, oversimplifies things and gives a false impression of the development of the mathematics. For example four men who perhaps did as much as any to revolutionise mathematics in the 16th and 17th Centuries, Copernicus, Kepler, Galileo and Newton, were all deeply religious Christians who in many ways saw their scientific work as a religious undertaking. Pythagoras developed a world-view in which mathematics and religion were completely linked. Pythagoras saw the beauty in the theory of numbers and he saw this mathematical beauty translated into musical beauty. From there he developed a view of the world based on numbers and shapes. He believed that the Earth was a sphere, not for any experimental reason, but simply because he believed that the sphere was the most perfect shape, so the Earth had to be a sphere. He also believed that the Earth was not at the centre of the universe but that the Earth moved. The argument is that mathematical laws, in order to be properly relied upon, must have attributes which indicate an origin in God. They are true everywhere (omnipresent), true always (eternal), cannot be defied or defeated (omnipotent), and are rational and have language characteristics (which makes them personal)."					
Links with Sexey's Seven ethos	1. Courage – Becoming confident in new mathematical skills. Being brave enough to answer and ask questions. 2. Forgiveness – Working in pairs, small groups or as a whole class and accepting others' mistakes. Not blaming others for work that goes wrong. 3. Honesty – Being able to admit to mistakes. Being fair when working with others in pairs, small groups or as a whole class. Being truthful about mistakes made. 4. Kindness – Working in pairs, small groups or as part of a whole class and helping others when they find things difficult.					

	5. Respect – Learning how to behave in a Maths classroom. Showing consideration of others in the classroom.
	6. Empathy – Understanding that one's peers are all different. Understanding other's difficulties with mathematics.
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