

## Longfield Academy Key Stage 3 Curriculum 2016-17

The following documents are outlines of Programmes of Study for each subject in Key stage 3 (years 7 and 8). Parents and Carers may wish to use this information and the resources highlighted to further support learning at home with their son/daughter.

Please contact the Head of Subject if you require further details.

### Year 7 Humanities

Module - Topic	Key content	Resources/Websites
History - Skills	The value of history Evaluating evidence Primary and secondary evidence Fact, opinion, bias and objectivity Timelines and chronology Bog bodies - Grauballe and Tollund Introduction to Roman life	<a href="http://www.bbc.co.uk/guides/ztnvgk7">http://www.bbc.co.uk/guides/ztnvgk7</a>  <a href="http://ngm.nationalgeographic.com/2007/09/bog-bodies/bog-bodies-text.html">http://ngm.nationalgeographic.com/2007/09/bog-bodies/bog-bodies-text.html</a>
Geography - Map skills & fieldwork study	Oceans, continents, capital cities Mapping connections 4 figure grid references 6 figure grid references Map symbols Longitude and latitude  Investigation based on a local field study of Eynsford. Write up will include an introduction, methodology, data presentation, data analysis, conclusion and evaluation.	<a href="http://www.bbc.co.uk/education/guides/z6j6fg8/revision">http://www.bbc.co.uk/education/guides/z6j6fg8/revision</a>  <a href="https://www.ordnancesurvey.co.uk/mapzone/">https://www.ordnancesurvey.co.uk/mapzone/</a>  <a href="http://www.rgs.org/OurWork/Schools/Fieldwork+and+local+learning/Fieldwork+techniques/Fieldwork+techniques.htm">http://www.rgs.org/OurWork/Schools/Fieldwork+and+local+learning/Fieldwork+techniques/Fieldwork+techniques.htm</a>
RE- Poverty Citizenship - Democracy	Needs in life Causes of poverty Religious attitudes to poverty Religious attitudes to wealth	<a href="http://www.bbc.co.uk/schools/gcsebite/size/rs/poverty/">http://www.bbc.co.uk/schools/gcsebite/size/rs/poverty/</a>  <a href="http://england.shelter.org.uk/get_advice/homelessne">http://england.shelter.org.uk/get_advice/homelessne</a>

	<p>Homelessness Gambling - The National Lottery</p> <p>What is authority? To understand the role of Parliament? Who do we choose to represent us? What is the structure of Parliament?</p>	<p><a href="#">ss/homelessness - an introduction/what is homelessness</a></p> <p><a href="https://www.unicef.org/sowc05/english/poverty.html">https://www.unicef.org/sowc05/english/poverty.html</a></p> <p><a href="http://www.parliament.uk/">http://www.parliament.uk/</a></p>
Geography - Brazil	<p>What is Brazil like? Living in Sao Paulo - a contrasting city Improving lives in squatter settlements Different areas of Brazil - physical features Climate of Brazil (Amazon rainforest) Structure of the rainforest Animals of the rainforest How people are using the rainforest</p>	<p><a href="http://www.bbc.co.uk/education/guides/z2dmn39/revision">http://www.bbc.co.uk/education/guides/z2dmn39/revision</a></p> <p><a href="http://www.bbc.co.uk/education/guides/zpmbn9q/revision">http://www.bbc.co.uk/education/guides/zpmbn9q/revision</a></p> <p><a href="http://www.geography.learnontheinternet.co.uk/topics/rainforest.html">http://www.geography.learnontheinternet.co.uk/topics/rainforest.html</a></p>
History - Power and control	<p>Contenders to the English throne 1066 Battle of Stamford Bridge Battle of Hastings Maintenance of power and control Castles Domesday Book Feudal system</p>	<p><a href="http://www.bbc.co.uk/bitesize/ks3/history/middle_ages/1066_norman_conquest/revision/5/">http://www.bbc.co.uk/bitesize/ks3/history/middle_ages/1066_norman_conquest/revision/5/</a></p> <p><a href="http://www.schoolhistory.co.uk">www.schoolhistory.co.uk</a></p> <p><a href="http://www.bbc.co.uk/education/subjects/zk26n39">http://www.bbc.co.uk/education/subjects/zk26n39</a></p>
RE - Discrimination Citizenship - Life's challenges	<p>Prejudice Discrimination Racism Religious views on prejudice and discrimination</p> <p>Keeping yourself safe on the Railway - Dangers of the railways. Smoking project - harmful effects</p>	<p><a href="http://www.bbc.co.uk/schools/gcsebitesize/rs/prejudice/">http://www.bbc.co.uk/schools/gcsebitesize/rs/prejudice/</a></p> <p><a href="https://www.networkrail.co.uk/who-we-are/our-approach-to-safety/">https://www.networkrail.co.uk/who-we-are/our-approach-to-safety/</a></p> <p><a href="http://www.who.int/features/qa/60/en/">http://www.who.int/features/qa/60/en/</a></p>

## Year 8 Humanities

Module - Topic	Key content	Resources
Geography - Hazards	<p>The earth's structure/tectonic plates            Plate boundaries            Earthquake LIC (Nepal)            Earthquake HIC (Italy)            Comparison of earthquakes            Managing earthquakes            Asian Tsunami            Volcanoes (Mt Pinatubo)            Why people live in tectonic areas            Causes of tropical storms            Typhoon Haiyan - Effects of a tropical storm</p>	<p><a href="http://www.bbc.co.uk/schools/gcsebitesize/geography/natural_hazards/">http://www.bbc.co.uk/schools/gcsebitesize/geography/natural_hazards/</a></p> <p><a href="http://www.bbc.co.uk/newsround/36129992">http://www.bbc.co.uk/newsround/36129992</a></p> <p><a href="http://www.rgs.org/OurWork/Schools/School+Members+Area/Hazards+and+risk/Hazards+and+risk.htm">http://www.rgs.org/OurWork/Schools/School+Members+Area/Hazards+and+risk/Hazards+and+risk.htm</a></p>
History - Life and death	<p>Black Death            The Plague            Causes &amp; Cures            Great Fire of London            Witchcraft            Interrogation techniques</p>	<p><a href="http://www.schoolhistory.co.uk">www.schoolhistory.co.uk</a></p> <p><a href="http://www.bbc.co.uk/education/subjects/zk26n39">http://www.bbc.co.uk/education/subjects/zk26n39</a></p>
RE- Animal Rights Citizenship - Human rights	<p>Animals Vs Humans            Animals in fashion            Vegetarianism            Animals in experiments            Animals in zoos</p> <p>Crime and Anti-social behaviour            Human rights and responsibilities</p>	<p><a href="http://www.bbc.co.uk/religion/0/28248329">http://www.bbc.co.uk/religion/0/28248329</a></p> <p><a href="http://www.bbc.co.uk/education/guides/zys3d2p/revision/4">http://www.bbc.co.uk/education/guides/zys3d2p/revision/4</a></p> <p><a href="http://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf">http://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf</a></p>
History - Industrial Revolution & Slavery	<p>Slavery-'Middle Passage'            Slave Trade Triangle            Industrial Revolution</p>	<p><a href="http://www.schoolhistory.co.uk">www.schoolhistory.co.uk</a></p> <p><a href="http://www.bbc.co.uk/education/subjects/zk26n39">http://www.bbc.co.uk/education/subjects/zk26n39</a></p>

	Domestic System to Factory Town and Living Conditions Crime Transport	
Geography - River flooding	The water cycle The drainage basin Meanders Waterfalls Causes of flooding Causes and effects of flooding in Bangladesh Flood prevention in Bangladesh Flooding in the UK Flood prevention in the UK Flood management schemes	<a href="http://www.youtube.com/watch?v=Yw275056JtA">http://www.youtube.com/watch?v=Yw275056JtA</a>  <a href="https://www.gov.uk/check-flood-risk">https://www.gov.uk/check-flood-risk</a>
RE - Matters of life and death Citizenship - Volatile substances	Sanctity of life Life after death Abortion Issue of conjoined twins Euthanasia  Illegal drugs - understanding the effects and consequences of taking illegal drugs Local and General elections.	<a href="https://revisionworld.com/gcse-revision/rs-religious-studies/social-issues/life-after-death">https://revisionworld.com/gcse-revision/rs-religious-studies/social-issues/life-after-death</a>  <a href="http://www.parliament.uk/">http://www.parliament.uk/</a>

## Year 7 & 8 PE

Module	Topic area / Key areas of focus	Sports that may be covered dependent upon number of factors
1	<p>DEMONSTRATE PERSONAL IMPROVEMENT</p> <p>Improving personal performance through competitive activities focusing on health and fitness:</p>	<p>Choice of:</p> <p>Health related exercise including all competitive sport</p> <p>Baseline testing</p>
2 & 6	<p>DEVELOPING SKILLS, TECHNIQUES AND ROLES IN SPORT</p> <p>Developing new techniques for different skills across the following sports:</p>	<p>Choice of:</p> <p>Netball</p> <p>Football</p> <p>Rugby</p> <p>Basketball</p> <p>Athletics</p>
3	<p>PERFORMING IN AESTHETIC ACTIVITIES</p> <p>Develop a range of skills/ techniques and perform them in audience based situations.</p>	<p>Choice of:</p> <p>Gymnastics</p> <p>Dance</p> <p>Yoga</p> <p>Trampolining</p>
4	<p>PARTICIPATE IN PROBLEM SOLVING ACTIVITIES CHALLENGES</p> <p>To take part in a range of team building and trust activities in an outdoor setting.</p>	<p>Choice of:</p> <p>OAA-orienteeing</p> <p>Team-building activities</p> <p>Roles in sport (coaching)</p> <p>Any activity/sport that involves problem solving.</p>

5 & 6	RANGE OF TACTICS AND STRATEGIES  Develop skills and improve performance in competitive sports, using a range of tactics and strategies - choice of:	Choice of: Netball Football Rugby Handball Basketball
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### English Year 7 & 8

Year	Module	Topics/focus	What can I do at home?
7	1/2	Poetry alongside thematically linked class novel. Either: White Fang; The Call of the Wild; The Cry of the Wolf(Jack London,Melvin Burgess).	If you would like to support your child's English study at home, please contact their class teacher for recommendations of books and activities that are most appropriate for your child. The listed class reading texts are subject to change depending on availability and teacher specialties, we would therefore advise waiting until the first week of module one before contacting your child's teacher. Purchasing alternative titles written by the author's listed here would be an excellent addition to your child's summer reading.
	3	The stories of Shakespeare. Key focus is on adaptation and enjoyment of the narratives of Shakespeare.	
	4	Narrative Voice-creative writing and identify.	
	5	Voice from History- a look at Greek mythology, Chaucer and snippets of classic literature.	
	6	Global Voices-travel writing and poetry from other cultures.	
8	1/2	Poetry alongside thematically linked class novel. Either: I Am David; The Boy in the Striped Pyjamas;The Book Thief(Anne Holm, John Boyne, Markus Zusak).	
	3	Gothic literature-a study of classic gothic tales and writing techniques.	

	4	A Midsummer Night's Dream-Language study.	
	5	Words at Work-advertising, the relationship between technology and language.	
	6	Words at Work 2-writing for a purpose, expressing a viewpoint or argument with a focus on debate and communication skills.	
8x	1/2	Poetry alongside thematically linked class novel-All Quiet on the Western Front (Erich Remarque).	
	3	Gothic literature:-a study of classic gothic tales and writing techniques.	
	4	A Midsummer Night's Dream-Language study.	
	5	Words at Work-advertising, the relationship between technology and language.	
	6	Words at Work 2-writing for a purpose, expressing a viewpoint or argument with a focus on debate and communication skills.	

## Years 7 & 8 Computing

Module	Topic area/key area of focus
1	Esafety, Cyber Security, File Management
2	Spreadsheet Modelling
3	Scratch Programming
4	Python Programming
5	Computing Topic Project - Design and market a new mobile (including hardware, software, algorithm etc)
6	Computing Topic Project - Design and market a new mobile/LAT Assessment Task

## Year 7 MFL

Module	Main topic and key learning points	Extra Resources
1	ALL ABOUT MYSELF understand numeracy - numbers 1-31 simple classroom phrases in Target Language Phonics Connectives Understand basic grammatical structures (my name is, I have, I am)	<a href="http://www.duolingo.com">www.duolingo.com</a> <a href="http://www.memrise.com">www.memrise.com</a> <a href="http://www.quizlet.com">www.quizlet.com</a> Revision Ace (app to plan your revision) Forest App Youtube songs on numbers and alphabet.
2	MY FAMILY AND PETS 1st and 3rd person Masculine and feminine words Adjectival agreement Numbers 40-100	<a href="http://www.duolingo.com">www.duolingo.com</a> <a href="http://www.memrise.com">www.memrise.com</a> <a href="http://www.quizlet.com">www.quizlet.com</a> Revision Ace (app to plan your revision) Forest App
3	MY SCHOOL Opinions Justifications (because...) Prepositions Subjects	<a href="http://www.duolingo.com">www.duolingo.com</a> <a href="http://www.memrise.com">www.memrise.com</a> <a href="http://www.quizlet.com">www.quizlet.com</a> Revision Ace (app to plan your revision) Forest App
4	MY HOUSE Prepositions There is/are Where do you live? What do you have in your house? Possessive Omission of article	<a href="http://www.duolingo.com">www.duolingo.com</a> <a href="http://www.memrise.com">www.memrise.com</a> <a href="http://www.quizlet.com">www.quizlet.com</a> Revision Ace (app to plan your revision) Forest App
5	DAILY ROUTINE Reflexive verbs Telling the time	<a href="http://www.duolingo.com">www.duolingo.com</a> <a href="http://www.memrise.com">www.memrise.com</a> <a href="http://www.quizlet.com">www.quizlet.com</a> Revision Ace (app to plan your revision) Forest App

6	<p>FREE TIME</p> <p>Present tense</p> <p>Au / à la / aux OR al / a la / a los / a las</p> <p>Faire / hacer</p> <p>Aimer / Me encanta + infinitive</p> <p>On peut / Se puede</p> <p>Simple future tense</p> <p>Adverbs of frequency</p>	<p><a href="http://www.duolingo.com">www.duolingo.com</a></p> <p><a href="http://www.memrise.com">www.memrise.com</a></p> <p><a href="http://www.quizlet.com">www.quizlet.com</a></p> <p>Revision Ace (app to plan your revision)</p> <p>Forest App</p>
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### Year 8 MFL

Module	Main topic and key learning points	Extra Resources
1	<p>HOLIDAYS</p> <p>Past tense</p> <p>Prepositions</p> <p>Imperfect phrases</p> <p>Time phrases</p> <p>Wider range of linking words</p>	<p><a href="http://www.duolingo.com">www.duolingo.com</a></p> <p><a href="http://www.memrise.com">www.memrise.com</a></p> <p><a href="http://www.quizlet.com">www.quizlet.com</a></p> <p>Revision Ace (app to plan your revision)</p> <p>Forest App</p> <p>Youtube video explaining grammatical points</p>
2	<p>CLOTHES &amp; SHOPPING</p> <p>Points of view</p> <p>Prices and size</p> <p>Adjectival agreement</p> <p>Word order</p> <p>Modal verbs</p> <p>Possessive adjectives (my...)</p>	<p><a href="http://www.duolingo.com">www.duolingo.com</a></p> <p><a href="http://www.memrise.com">www.memrise.com</a></p> <p><a href="http://www.quizlet.com">www.quizlet.com</a></p> <p>Revision Ace (app to plan your revision)</p> <p>Forest App</p> <p>Youtube video explaining grammatical points</p>
3	<p>JOBS</p> <p>Conditional</p> <p>Languages in careers</p> <p>Masculine/feminine</p> <p>Omission of article</p>	<p><a href="http://www.duolingo.com">www.duolingo.com</a></p> <p><a href="http://www.memrise.com">www.memrise.com</a></p> <p><a href="http://www.quizlet.com">www.quizlet.com</a></p> <p>Revision Ace (app to plan your revision)</p> <p>Forest App</p> <p>Youtube video explaining grammatical points</p>
4	MY TOWN & LOCAL AREA	<p><a href="http://www.duolingo.com">www.duolingo.com</a></p>

	<p>Negatives  Formal/informal  <i>to go</i>  Prepositions  Asking and responding to invitations  Near future tense</p>	<p><a href="http://www.memrise.com">www.memrise.com</a>  <a href="http://www.quizlet.com">www.quizlet.com</a>  Revision Ace (app to plan your revision)  Forest App  Youtube video explaining grammatical points</p>
5	<p>FOOD &amp; HEALTHY LIVING  Partitive  Quantities  Impersonal verbs  Giving advice  Imperfect  Point of view with justification  Frequency  Third person in the present tense</p>	<p><a href="http://www.duolingo.com">www.duolingo.com</a>  <a href="http://www.memrise.com">www.memrise.com</a>  <a href="http://www.quizlet.com">www.quizlet.com</a>  Revision Ace (app to plan your revision)  Forest App  Youtube video explaining grammatical points</p>
6	<p>TRAVEL  Role plays  Cultural awareness  Mixture of tenses</p>	<p><a href="http://www.duolingo.com">www.duolingo.com</a>  <a href="http://www.memrise.com">www.memrise.com</a>  <a href="http://www.quizlet.com">www.quizlet.com</a>  Revision Ace (app to plan your revision)  Forest App  Youtube video explaining grammatical points</p>

## Year 7 Mathematics

Module	Level	Grade	Topic area & key area of focus
1	Advanced	7, 8, 9	<p><b>A. PROPERTIES OF NUMBERS</b></p> <p>Solve LCM problems in context such as time.</p> <p>Use prime factor decomposition to find the LCM and HCF</p> <p>Be able to round to any significant figure.</p>
1	Secure	4, 5, 6	<p>Express a number as the product of its primes in index form.</p> <p>Find the prime numbers up to 100 using the sieve method.</p> <p>Find the HCF of 2 or more numbers.</p> <p>Find the LCM of 2 numbers.</p> <p>Be able to find the square and cube roots of a number.</p> <p>Convert between a mixed number and an improper fraction.</p> <p>Compare 2 fractions.</p> <p>Be able to round to the nearest 10/100/100 and 1 or 2 dp.</p>
1	Emerging	1, 2, 3	<p>Apply BIDMAS to any given sum with multiple operators.</p> <p>Find all the factors of a 2 digit number.</p> <p>Recall the squares up to 15 x 15 and the cubes up to 5 x 5 x 5</p> <p>Know the times tables up to 12 x 12</p>

			<p>Find multiples of a number up to 12</p> <p>Identify if a number is odd or even.</p> <p>Understand that a proper fraction is less than a whole.</p> <p>Find simple equivalent fractions.</p> <p>Understand place value using a HTU grid.</p> <p>Understand negatives numbers in the context of a vertical or a horizontal number line.</p>
1	Advanced	7, 8, 9	<p><b>B. INTRODUCING THE LANGUAGE OF ALGEBRA</b></p> <p>Using algebra to solve a problem when not prompted by algebraic notation.</p> <p>Forming equations based on a worded problem (particularly geometric).</p>
1	Secure	4, 5, 6	<p>Be able to substitute into a worded problem.</p> <p>Be able to substitute into an expression including negative numbers and decimals. Calculator and non-calculator.</p>
1	Emerging	1, 2, 3	<p>Be able to identify an algebraic terms, expressions, equations and formulae.</p>
2	Advanced	7, 8, 9	<p><b>A. OPERATIONS WITH NUMBER</b></p> <p>The understanding of a fraction as an operator and the value of a fraction in context.</p> <p>Application of the laws of indices.</p>

2	Secure	4, 5, 6	<p>Complete application of BIDMAS laws.</p> <p>Recognising the link between multiplication of numbers and indices.</p> <p>Four rules applied to fractions.</p> <p>Finding the reciprocal of a number, and evaluating any number to the power of zero.</p> <p>Multiplying and dividing positive &amp; negative integers &amp; decimals.</p>
2	Emerging	1, 2, 3	<p>Recognising links between repeated addition and multiplication tables.</p> <p>Addition and subtraction of positive and negative integers and decimals.</p>
2	Advanced	7, 8, 9	<p><b>B. UNITS OF MEASUREMENT</b></p> <p>Solve multi-step, functional, problems involving area of rectangles and triangles and the surface area and volume of cuboids.</p>
2	Secure	4, 5, 6	<p>Find the surface area of a cuboid using a net.</p> <p>Find area and perimeter where the units of measure are not consistent.</p> <p>Find the area of compound shapes made from rectangles and triangles.</p> <p>Find the area of rectangles and triangles using an appropriate formula.</p>
2	Emerging	1, 2, 3	<p>Find the area of a basic rectangle by recognising the fact that multiplying the number of rows by the number of columns finds the total number of square centimetres in the shape.</p> <p>Find the area of a right angled triangle by counting squares.</p> <p>Find the area of a rectangle by counting squares.</p>

			Find the perimeter of shapes by counting.
3	Advanced	7, 8, 9	<p><b>A. FACTIONS/DECIMALS/PERCENTAGES</b></p> <p>Use of scale factors (including decimal) to solve proportion problems.</p> <p>Understanding what percentages greater than 100 represent.</p>
3	Secure	4, 5, 6	<p>Dividing a number into a given ratio.</p> <p>Proportion problems using the unitary method.</p> <p>Writing ratios as fractions of the whole.</p> <p>Comparing fractions, decimals and percentages.</p> <p>Short division to changing a fraction to a decimal.</p> <p>Changing a decimal to a percentage and vice versa.</p>
3	Emerging	1, 2, 3	<p>Understanding that a percentage means out of 100, where as a decimal is out of 1 whole.</p> <p>Finding equivalent ratios and simplifying.</p> <p>Express simple ratios.</p>
3	Advanced	7, 8, 9	<p><b>B. PROBABILITY</b></p> <p>Understanding the difference between experimental and theoretical probability.</p>
3	Secure	4, 5, 6	Calculate the probability of combined events using a sample space diagram. (Independent events)

3	Emerging	1, 2, 3	<p>Find the probability of an event NOT happening given the probability of it happening (P). (1-P)</p> <p>Represent a probability as a fraction, decimal or percentage.</p> <p>Understand that all probabilities add up to 1.</p> <p>Describe events using the language of probability and place them on a probability scale.</p>
4	Advanced	7, 8, 9	<p><b>A. THE DATA HANDLING CYCLE</b></p> <p>To know how to create and conduct suitable surveys and experiments and hence draw simple conclusions from the data.</p>
4	Secure	4, 5, 6	<p>To be able to collect data by creating data collection sheets, frequency tables and questionnaires.</p> <p>When they have gathered their data to answer a question or explore a situation, pupils record their results in simple lists, tables, diagrams and graphs, in order to communicate their findings (including frequency polygons and pie charts).</p>
4	Emerging	1, 2, 3	<p>To be able to construct tally charts and draw bar charts, pictograms and basic statistical diagrams.</p> <p>To be able to extract and Interpret data from simple tables, graphs and charts.</p>
4	Advanced	7, 8, 9	<p><b>B. ALGEBRA MANIPULATION</b></p> <p>Factorising a quadratic expression.</p> <p>Expanding a double bracket and simplifying by collecting like terms.</p>
4	Secure	4, 5, 6	<p>Factorising terms into a single bracket.</p>

			Expanding a single bracket and simplifying by collecting like terms.
4	Emerging	1, 2, 3	Multiplying algebraic terms together. Adding, subtracting algebraic terms.
4	Advanced	7, 8, 9	<b>C. PATTERNS, SEQUENCES &amp; THE NTH TERM</b> Finding the nth term of simple quadratic sequences including picture pattern sequences. Finding the next terms of a non linear sequence including squares, cubes.  Identify gradient and y intercept of a linear graph.
4	Secure	4, 5, 6	Solving problems involving nth term of a sequence. Finding the nth term of a linear sequence including picture pattern sequences.  Draw and plot linear graphs.
4	Emerging	1, 2, 3	Identifying the term-to-term rule for a linear sequence. Finding the next term in a picture pattern sequence. Recognising and inputting missing terms in simple positive and negative sequences.  Plotting points in all four quadrants.
5	Advanced	7, 8, 9	<b>A. PROPERTIES OF 2D SHAPES &amp; TRANSFORMATIONS</b> Identify congruence and similarity. Enlarge a shape from a point with a negative or fractional scale factor.  Enlarge a shape from a point with a positive scale factor.  Understand that translations, rotations and reflections produce congruent shapes.

			Rotate around a point.
5	Secure	4, 5, 6	<p>Reflect a shape in a diagonal line.</p> <p>Understand the relationship between interior and exterior angles (supplementary to 180)</p> <p>Find the sum of interior angles in any polygon.</p> <p>Angles in parallel lines rules: alternate, corresponding, co-interior (supplementary), vertically opposite.</p> <p>To understand parallel lines.</p> <p>Be able to sort 2D shapes according to their properties e.g. equal sides, parallel sides, equal angles, diagonals.</p> <p>Identify lines of symmetry in a 2D shape, and the order of rotational symmetry.</p>
5	Emerging	1, 2, 3	<p>Reflect a given shape in a horizontal or vertical line.</p> <p>Identify a translation, and correctly state the number of square moved along and up/down.</p> <p>Definition of a polygon.</p> <p>Angles in a triangle = 180</p> <p>Basic angle rules: angles around a point and angles on a straight line.</p> <p>Be able to draw an angle accurately.</p> <p>Be able to estimate and measure an angle accurately using a protractor.</p>
5	Advanced	7, 8, 9	<p><b>B. INTERPRETING STATISTICAL DATA</b></p> <p>Pupils compare 2 simple distributions using the range, and one of the mode, median or mean. They interpret averages and draw conclusions.</p>

5	Secure	4, 5, 6	<p>To calculate mean and modal class from ungrouped frequency tables.</p> <p>To organise large sets of data into a stem and leaf diagram and interpret these to find averages and range.</p>
5	Emerging	1, 2, 3	To be able to calculate mean, mode, median and range from a set of discrete data.
6	Advanced	7, 8, 9	<p><b>A. NUMBER – COMPOUND MEASURES</b></p> <p>Draw a real life graph from a given scenario.</p> <p>Analyse real life graphs and draw conclusions.</p> <p>Problem solve and make comparisons using speed/distance/time.</p>
6	Secure	4, 5, 6	<p>Draw and interpret simple conversion graphs.</p> <p>Identify key properties of real life graphs and make simple comments.</p> <p>Use speed/distance/time ratio for calculations.</p>
6	Emerging	1, 2, 3	<p>Suggest suitable units for estimating or measuring length, time, mass and capacity.</p> <p>Highlight a positive or negative relationship between two variables.</p>
6	Advanced	7, 8, 9	<p><b>B. PROPERTIES OF 3D SHAPES</b></p> <p>Solve problems where you are given a volume and need to find a dimension OR one shape is equal to the volume of another.</p> <p>Be able to substitute into a given formula for volume (sphere, cone, and pyramid).</p>

6	Secure	4, 5, 6	<p>Be able to work backwards to find a dimension given the volume of a prism.</p> <p>Be able to find the volume of a prism using the area of the cross-section.</p> <p>Definition of a prism.</p> <p>Find the connection between faces, edges and vertices for solids without curved faces.</p> <p>Represent a 3D shape in other forms.</p>
6	Emerging	1, 2, 3	<p>Be able to visualise a 3D solid as a 2D net for simple solids.</p> <p>Counting faces, edges and vertices of any 3D shape.</p> <p>Understanding of 3 dimensions as a length, width and height.</p> <p>Find a volume of a cube or cuboid by counting cubes.</p>

### Year 8 Mathematics

Module	Level	Grade	Topic area & key area of focus
1	Advanced	7, 8, 9	<p><b>A. FRACTIONS &amp; PERCENTAGES</b></p> <p>To solve compound percentage real life problems.</p> <p>Be able to find original values using reverse percentages techniques.</p>
1	Secure	4, 5, 6	<p>To calculate percentage change.</p> <p>To calculate simple interest with or without a calculator.</p> <p>To be able to increase/decrease an amount by a given percentage. With or without a calculator.</p>

1	Emerging	1, 2, 3	To calculate fractional or percentage parts of quantities and measurements using a calculator where appropriate.
1	Advanced	7, 8, 9	<p><b>B. MANIPULATING ALGEBRA, PATTERNS &amp; SEQUENCES</b></p> <p>Solving linear simultaneous equations algebraically and graphically.</p>
1	Secure	4, 5, 6	<p>Solving linear equations with unknown on both sides including brackets and fractions, graph where appropriate.</p> <p>Set up and solve equations.</p>
1	Emerging	1, 2, 3	Solve one and two step linear equations including a single bracket and fractions, graph where appropriate.
2	Advanced	7, 8, 9	<p><b>A. STANDARD FORM</b></p> <p>Solve problems with number in standard form eg speed distance time, unitary ratio</p>
2	Secure	4, 5, 6	<p>Write large numbers in standard form and vice versa, both for large and small numbers</p> <p>Solve arithmetic problems in standard form with and without a calculator</p>
2	Emerging	1, 2, 3	Use Integer powers and associated real roots (square, cube). Recognise powers of 2, 3, 4, 5.
2	Advanced	7, 8, 9	<p><b>B. CONSTRUCTIONS &amp; LOCI</b></p> <p>Find an area given 2 or more loci constraints.</p>

			<p>Construction of polygons.</p> <p>Understand the relationship between the bearing of A to B and B to A.</p>
2	Secure	4, 5, 6	<p>Bisect an angle and application to loci problems.</p> <p>Bisect a line segment and application to loci problems.</p> <p>Draw the locus of points equidistant from a line segment.</p> <p>Be able to measure or draw a bearing.</p>
2	Emerging	1, 2, 3	<p>Construct an equilateral or an isosceles triangle using just a ruler and compasses.</p> <p>Given side lengths and angles accurately draw a triangle using a ruler and a protractor.</p> <p>Understand the loci of all points equidistant from a point form a circle.</p>
2	Advanced	7, 8, 9	<p><b>C. STATISTICS</b></p> <p>Identifying regression line.</p> <p>Extrapolation</p> <p>Identifying strength of correlation.</p>
2	Secure	4, 5, 6	<p>Identify positive, negative and no correlation.</p> <p>Drawing and using a line of best fit to estimate values.</p>
2	Emerging	1, 2, 3	<p>Plot a scatter graph and draw simple conclusions.</p>

3	Advanced	7, 8, 9	<p><b>A. SURDS</b></p> <p>Use the 4 operations to calculate with Surds.</p> <p>Simplify Surd expressions involving squares.</p>
3	Secure	4, 5, 6	<p>Use non integer powers (<math>\frac{1}{2}</math>, <math>\frac{1}{3}</math>,) and negative powers (-3)</p> <p>Apply the laws of Indices, multiply, divide and brackets.</p>
3	Emerging	1, 2, 3	<p>Use Integer powers and associated real roots (square, cube). Recognise powers of 2, 3, 4, and 5.</p>
3	Advanced	7, 8, 9	<p><b>B. PYTHAGORAS &amp; TRIGONOMETRY</b></p> <p>Pythag problems in 3D.</p> <p>Solve problems with missing side lengths and missing angles using SOHCAHTOA.</p>
3	Secure	4, 5, 6	<p>Solve problems using Pythagoras Theorem, including finding a shorter side.</p> <p>Find the connection between the areas of the squares constructed on the sides of a right -angled triangle.</p>
3	Emerging	1, 2, 3	<p>Given a diagram work out the area of the squares on the sides of a right-angled triangle and look for connections.</p> <p>Calculate angles in a right-angled triangle.</p> <p>Find by measuring the lengths of the three sides in a right angled triangle.</p> <p>Identify the right angle and realise it is the largest angle in the triangle.</p> <p>Locate the hypotenuse of a right-angled triangle.</p>

4	Advanced	7, 8, 9	<p><b>A. PROPORTION</b></p> <p>To solve problems involving inverse proportional including graphical and algebraic representations.</p>
4	Secure	4, 5, 6	<p>To solve problems involving direct proportion.</p> <p>Be able to convert between currencies using calculations or graphical representations.</p>
4	Emerging	1, 2, 3	<p>To be able to use the Unitary method to solve proportion problems, Including best buy and recipe and other real life scenarios.</p>
4	Advanced	7, 8, 9	<p><b>B. SIMILAR SHAPES</b></p> <p>Be able to solve complex volume problems using the most efficient method.</p> <p>Understand the relationship between scale factors for length, area and volume.</p>
4	Secure	4, 5, 6	<p>Identify planes of symmetry in 3D shapes.</p> <p>Be able to work backwards to find the missing side length of a smaller similar shape.</p> <p>Be able to find a missing side length of an enlarged similar shape.</p>
4	Emerging	1, 2, 3	<p>Identify similar 2D shapes.</p>
5	Advanced	7, 8, 9	<p><b>A. INEQUALITIES</b></p> <p>Graphing inequalities.</p>

			Solve double inequalities.
5	Secure	4, 5, 6	Solve inequalities in all contexts. Represent a double inequality on a number line. Identify the double inequality given the number line.
5	Emerging	1, 2, 3	Represent a simple inequality on a number line. Identify the inequality given the number line.
5	Advanced	7, 8, 9	<b>B. PROBABILITY</b> Listing combinations that lead to the desired outcome, the applying AND and OR rules. More sophisticated use of Venn diagrams. Understand that the more times an experiment is performed the closer the relative frequency gets to the theoretical probability.
5	Secure	4, 5, 6	Be able to find the relative frequency of an event. Use a tree diagram to find the probability of a required outcome. Construct a tree diagram for dependent events (non-replacement).
5	Emerging	1, 2, 3	Construct a simple Venn diagram. Secure at multiplying fractions. Fill in the missing fractions on a simple tree-diagram (independent events).

6	Advanced	7, 8, 9	<p><b>A. CUMULATIVE FREQUENCY &amp; BOX PLOTS</b></p> <p>Recognise skewness.</p> <p>Interpret interquartile range in context to the problem and make comparisons between data sets.</p> <p>Use a cumulative frequency curve to answer questions posed about the data.</p>
6	Secure	4, 5, 6	<p>Read summary data from a cumulative frequency graph in order to construct a boxplot and calculate the interquartile range.</p> <p>Be able to identify upper and lower quartiles.</p> <p>Use the cumulative frequency to plot a cumulative frequency graph.</p>
6	Emerging	1, 2, 3	<p>Construct a Boxplot given the five summary data points</p> <p>Identify the median from a cumulative frequency graph</p> <p>Calculate the cumulative frequency in a grouped data table.</p> <p><b>B. KS3 RECAP</b></p>

## Year 7 Science

Module	Key Content	Resources / Websites
1	Cells; Particles and their behaviour	Textbook: Oxford KS3 Science Activate 1 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
2	Structure and function of body systems; Sound	Textbook: Oxford KS3 Science Activate 1 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
3	Elements, atoms and compounds; Light	Textbook: Oxford KS3 Science Activate 1 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
4	Reproduction; Reactions	Textbook: Oxford KS3 Science Activate 1 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
5	Acids and alkalis; Forces	Textbook: Oxford KS3 Science Activate 1 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
6	Space; Revision	Textbook: Oxford KS3 Science Activate 1 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>

## Year 8 Science

Module	Key Content	Resources / Websites
1	Health and lifestyle; Periodic table	Textbook: Oxford KS3 Science Activate 2 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
2	Electricity and magnetism; Separation techniques	Textbook: Oxford KS3 Science Activate 2 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
3	Energy; Revision	Textbook: Oxford KS3 Science Activate 2 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
4	Metals and acids; Motion and pressure	Textbook: Oxford KS3 Science Activate 2 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
5	The Earth; Ecosystem processes	Textbook: Oxford KS3 Science Activate 2 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>
6	Adaptation and Inheritance	Textbook: Oxford KS3 Science Activate 2 Website: <a href="http://www.bbc.co.uk/education/subjects/zng4d2p">http://www.bbc.co.uk/education/subjects/zng4d2p</a>

## Year 7 Design Technology

Module - Topic	Key content	Resources/Websites
Food - The eatwell plate project	To make five dishes working through the eatwell plate and the key nutrients needed for the body. Learning a range of basic cooking skills.	<a href="http://www.foodafactoflife.org.uk/">http://www.foodafactoflife.org.uk/</a> <a href="http://www.jamieshomecookingskills.com/">http://www.jamieshomecookingskills.com/</a> <a href="http://www.nhs.uk/Livewell/Goodfood/Pages/the-eatwell-guide.aspx">http://www.nhs.uk/Livewell/Goodfood/Pages/the-eatwell-guide.aspx</a> <a href="http://www.bbc.co.uk/education/subjects/zb8jmp3">http://www.bbc.co.uk/education/subjects/zb8jmp3</a>
Product Design - The clock project	To make: Working clock Knowledge of cutting, shaping and smoothing more complex shapes. Using tools and equipment. Prepare a cutting list	<a href="http://www.bbc.co.uk/education/subjects/z6yb4wx">http://www.bbc.co.uk/education/subjects/z6yb4wx</a> <a href="http://www.design-technology.org/CDT10woodslesson.htm">http://www.design-technology.org/CDT10woodslesson.htm</a>
Construction - Bird on a wire project	To make: Puppet on a string (Marionette), knowledge of basic cutting, shaping and smoothing tools and equipment.. Cross halving joint, Balancing the puppet, Working with Pine or MDF, varnish, painting.	<a href="http://www.bbc.co.uk/schools/gcsebitesize/design/resistantmaterials/materialcomponentadhesiverev3.shtml">http://www.bbc.co.uk/schools/gcsebitesize/design/resistantmaterials/materialcomponentadhesiverev3.shtml</a>

## Year 8 Design Technology

Module - Topic	Key content	Resources/Websites
Food - Foods from around the world	To make five dishes from different countries around the world. This looks at different cultures and traditions. The project also covers theory on high risk foods and advancing kitchen skills.	<a href="http://www.foodafactoflife.org.uk/">http://www.foodafactoflife.org.uk/</a> <a href="http://www.jamieshomecookingskills.com/">http://www.jamieshomecookingskills.com/</a> <a href="http://www.bbc.co.uk/education/subjects/zb8jmp3">http://www.bbc.co.uk/education/subjects/zb8jmp3</a>
Product Design - The birdhouse project	To make: Bird house Knowledge of cutting, shaping and smoothing more complex shapes. Using tools and equipment. Working with wood to design and make a bird house and understanding sustainability	<a href="http://www.bbc.co.uk/education/subjects/z6yb4wx">http://www.bbc.co.uk/education/subjects/z6yb4wx</a> <a href="http://www.design-technology.org/CDT10woodslesson.htm">http://www.design-technology.org/CDT10woodslesson.htm</a> <a href="http://www.bbc.co.uk/schools/gcsebitesize/design/resistantmaterials/designsocialrev9.shtml">http://www.bbc.co.uk/schools/gcsebitesize/design/resistantmaterials/designsocialrev9.shtml</a>
Construction - Structures Project	Emergency shelters & Bridges made from paper rods. Knowledge and understanding of structures and their failings, how to produce designs, developments, working as a team, presenting, Q & A, profit and loss accounts, constructional problems, materials, design innovations, problem solving.	

## Year 7 Music

Module - Topic	Key content	Resources/Websites
Graphic Scores	Introduction to musical notation. Creating music as part of a group.	<a href="http://www.classicfm.com/discover-music/latest/graphic-scores-art-music-pictures/cage-aria/">http://www.classicfm.com/discover-music/latest/graphic-scores-art-music-pictures/cage-aria/</a>
Rhythm & Chant	The musical elements: rhythm, pulse, dynamics, tempo. Group performance: Playing music to a steady pulse, keeping in time with each other. Using the voice in group performance.	<a href="http://www.wmich.edu/mus-gened/mus150/Ch1-elements.pdf">http://www.wmich.edu/mus-gened/mus150/Ch1-elements.pdf</a> <a href="http://www.songsforteaching.com/chantsraps.htm">http://www.songsforteaching.com/chantsraps.htm</a>
Music for Festivals: Arriba 1	Music for an occasion. Paired Performance: Performing from notation and by ear. Using music technology to create music.	<a href="http://www.bbc.co.uk/schools/gcsebitesize/music/world_music/music_caribbean1.shtml">http://www.bbc.co.uk/schools/gcsebitesize/music/world_music/music_caribbean1.shtml</a> <a href="http://www.pitlanemagazine.com/cultures/an-introduction-to-caribbean-music.html">http://www.pitlanemagazine.com/cultures/an-introduction-to-caribbean-music.html</a> <a href="http://www.macworld.com/article/2083402/getting-started-with-garageband.html">http://www.macworld.com/article/2083402/getting-started-with-garageband.html</a>
Music for Festivals: Arriba 2	The pentatonic scale. Group performance: Playing music to a steady pulse; keeping in time. Using improvisation to create music.	<a href="http://www.simplifyingtheory.com/pentatonic-scale/">http://www.simplifyingtheory.com/pentatonic-scale/</a> <a href="http://www.dummies.com/art-center/music/guitar/how-to-play-the-pentatonic-scale-on-guitar/">http://www.dummies.com/art-center/music/guitar/how-to-play-the-pentatonic-scale-on-guitar/</a>
Baroque Music: Pachelbel's Canon 1	Reading stave notation. Structure in music. Using music technology in performance and composition.	<a href="http://www.classicfm.com/discover-music/periods-genres/baroque/baroque-music-beginners-guide/">http://www.classicfm.com/discover-music/periods-genres/baroque/baroque-music-beginners-guide/</a> <a href="http://www.classicfm.com/composers/pachelbel/music/pachelbels-canon-d-facts/">http://www.classicfm.com/composers/pachelbel/music/pachelbels-canon-d-facts/</a> <a href="http://www.macworld.com/article/2083402/getting-started-with-garageband.html">http://www.macworld.com/article/2083402/getting-started-with-garageband.html</a>

Baroque Music: Pachelbel's Canon 2	Group performance skills. Playing music to a steady pulse; keeping in time.	<a href="http://www.classicfm.com/discover-music/periods-genres/baroque/baroque-music-beginners-guide/">http://www.classicfm.com/discover-music/periods-genres/baroque/baroque-music-beginners-guide/</a>  <a href="http://www.classicfm.com/composers/pachelbel/music/pachelbels-canon-d-facts/">http://www.classicfm.com/composers/pachelbel/music/pachelbels-canon-d-facts/</a>
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## Year 8 Music

Module - Topic	Key content	Resources
Jazz & Modes 1	Scales and modes in music. Solo performance skills. Solo performance on piano, bass and guitar. Using modes in composition.	<a href="http://www.jazzstandards.com/theory/modal-jazz.htm">http://www.jazzstandards.com/theory/modal-jazz.htm</a>  <a href="http://www.dummies.com/art-center/music/piano/piano-for-dummies-cheat-sheet/">http://www.dummies.com/art-center/music/piano/piano-for-dummies-cheat-sheet/</a>  <a href="https://www.guitarlessons.com/guitar-lessons/beginner-guitar-quick-start-series/learn-how-to-play-guitar/">https://www.guitarlessons.com/guitar-lessons/beginner-guitar-quick-start-series/learn-how-to-play-guitar/</a>  <a href="http://www.guitarworld.com/guitarists-guide-playing-bass">http://www.guitarworld.com/guitarists-guide-playing-bass</a>
Jazz & Modes 2	Scales and modes in music. Solo performance skills. Solo performance on piano, bass and guitar. Using modes in composition.	<a href="http://www.jazzstandards.com/theory/modal-jazz.htm">http://www.jazzstandards.com/theory/modal-jazz.htm</a>  <a href="http://www.dummies.com/art-center/music/piano/piano-for-dummies-cheat-sheet/">http://www.dummies.com/art-center/music/piano/piano-for-dummies-cheat-sheet/</a>  <a href="https://www.guitarlessons.com/guitar-lessons/beginner-guitar-quick-start-series/learn-how-to-play-guitar/">https://www.guitarlessons.com/guitar-lessons/beginner-guitar-quick-start-series/learn-how-to-play-guitar/</a>  <a href="http://www.guitarworld.com/guitarists-guide-playing-bass">http://www.guitarworld.com/guitarists-guide-playing-bass</a>
Music for Film 1	Using music technology to compose music. Composing music to a brief.	<a href="http://www.classicfm.com/discover-music/periods-genres/film-tv/best-movie-soundtracks/">http://www.classicfm.com/discover-music/periods-genres/film-tv/best-movie-soundtracks/</a>

		<a href="http://www.classicfm.com/composers/williams/">http://www.classicfm.com/composers/williams/</a> <a href="https://www.careersinmusic.com/how-become-film-music-composer">https://www.careersinmusic.com/how-become-film-music-composer</a>
Music for Film 2	Using music technology to compose music. Composing music to a brief.	<a href="http://www.classicfm.com/discover-music/periods-genres/film-tv/best-movie-soundtracks/">http://www.classicfm.com/discover-music/periods-genres/film-tv/best-movie-soundtracks/</a> <a href="http://www.classicfm.com/composers/williams/">http://www.classicfm.com/composers/williams/</a> <a href="https://www.careersinmusic.com/how-become-film-music-composer">https://www.careersinmusic.com/how-become-film-music-composer</a>
Investigating Popular Song 1	Applying solo instrumental skills to group performance. Using music technology in performance.	<a href="https://www.youtube.com/watch?v=GemKqzLV4w">https://www.youtube.com/watch?v=GemKqzLV4w</a>
Investigating Popular Song 2	Group performance skills. Playing music to a steady pulse; keeping in time with each other. Using expression in group performance	<a href="https://www.youtube.com/watch?v=GemKqzLV4w">https://www.youtube.com/watch?v=GemKqzLV4w</a>