



Bishop Luffa

Steps

Assessment at KS3

Table of Contents

Bishop Luffa Steps.....	1
Assessment at KS3	1
Table of Contents	2
Introduction.....	5
How does it work?.....	6
English.....	7
English Steps – Reading.....	8
English Steps – Writing.....	9
English Steps – Speaking and Listening	11
Maths.....	12
Maths Steps – Number.....	13
Maths Steps – Algebra.....	15
Maths Steps – Geometry and Measures	17
Maths Steps – Probability and Statistics	19
Science.....	22
Science – Biology Steps (Year 7).....	25
Science – Biology Steps (Year 8).....	26
Science – Biology Steps (Year 9).....	27
Science – Chemistry Steps (Year 7)	28
Science – Chemistry Steps (Year 8)	28
Science – Chemistry Steps (Year 9)	29
Science – Physics Steps (Year 7)	30
Science – Physics Steps (Year 8)	31
Science – Physics Steps (Year 9)	31
Science – Working Scientifically Steps (all years).....	32
Modern Foreign Languages – French.....	34
Modern Foreign Languages – German.....	35
Modern Foreign Languages – Spanish	36
Modern Foreign Languages Steps – Listening.....	37
Modern Foreign Languages Steps – Speaking.....	38
Modern Foreign Languages Steps – Reading	39
Modern Foreign Languages Steps – Writing	40

Modern Foreign Languages Steps – Grammar	41
Latin	42
Humanities – History	43
History Steps.....	44
Humanities – Geography	45
Geography Steps	46
Humanities – Religious Education	47
Religious Education Steps.....	48
Arts - Art and Design	49
Art Steps - Ideas (I), Experimenting (E) and Creative Risk Taking (RT)	50
Art Steps - Content (C), Reflection (R) & Application (A), and Language/Literacy (L)	50
Art Steps – Technical Skills	51
Arts - Computer Science	52
Computer Science Steps – Algorithms	53
Computer Science Steps – Programming & Development	53
Computer Science Steps – Data & Data Presentation	54
Computer Science Steps – Hardware & Processing	55
Computer Science Steps – Communication and Networks.....	55
Computer Science Steps – Information Technology	56
Arts – Drama.....	57
Drama Steps – Creating	58
Drama Steps – Performing	58
Drama Steps – Responding.....	59
Arts - Music.....	60
Music Steps – Performing	61
Music Steps – Performing Indicators	61
Music Steps – Composing.....	62
Music Steps – Listening & Appraising.....	63
Design & Technology – Product Design and Textiles	64
D&T Product Design Steps – Explore.....	67
D&T Product Design Steps – Design.....	67
D&T Product Design Steps – Make.....	69
D&T Textiles Steps – Explore.....	70
D&T Textiles Steps – Design	70

D&T Textiles Steps – Make	71
Food Preparation & Nutrition Steps.....	72
Physical Education	73
PE Steps – Technique and Knowledge.....	76
PE Steps – Tactics and Creativity	76
PE Steps – Physical Capacity (Fitness)	77
PE Steps – Mental Capacity and Character	77
PE Steps – Leadership (Lead and Officiate)	78
PE Steps – Evaluation (Coaching)	78

Introduction

The introduction of the new National Curriculum in 2014 saw the removal of levels at Key Stage 1, 2 and 3. The reason for the removal of levels was they did not tell parents or teachers what a child could and could not do and gave too broad a measure of a child's achievements. This document outlines how **Bishop Luffa Steps** will assess pupil progress through KS3 and how the system builds on achievements at KS2 and prepares pupils for KS4.

The assessment carried out in school in years 7,8 and 9 will focus on pupils showing competency in subject specific key objectives derived from the new National Curriculum. Competency statements have been produced for all subjects and these include all elements of Bloom's taxonomy at each step. Bloom's taxonomy is widely accepted as being a very effective method of analysing and understanding how effective teaching, learning and assessment can occur.

Bloom's Taxonomy

Remember - recognizing, recalling

Understand - interpreting, exemplifying,
classifying, summarizing, inferring,
comparing, explaining

Apply - executing, implementing

Analyse - differentiating, organizing,
attributing

Evaluate - checking, critiquing

Create - generating, planning, producing



How does it work?

Competency statements will give teachers, pupils and parents insight into what individuals can and cannot do and therefore enable more effective support and target setting. There are 5 steps and each step is divided into three different degrees of competency:

- Launching- a pupil shows a basic understanding/application of the key objective
- Developing- a pupil shows more detailed understanding/application of the key objective
- Mastery- a pupil shows full understanding of the key objective

In year 7 each child will be assigned a starting step based on a combination of one or more of the following sources of information; prior attainment, CATS scores or baseline assessments as appropriate. Pupils will then be expected to progress 3 steps throughout KS3. Each step is clearly linked to prior attainment at KS2 but also to future targets at KS4. The table below shows how Bishop Luffa Steps are linked to KS2 and KS4.

NC Levels / Standardised scores	Bishop Luffa Steps	Degree of competency	GCSE target grade
	5	Mastery Developing Launching	9/8/7 A*
	4	Mastery Developing Launching	6/5 B
5/110+	3	Mastery Developing Launching	5/4 C
4/95-109	2	Mastery Developing Launching	
3/<95	1	Mastery Developing Launching	

Teachers will assess pupils work using task specific competencies; these will be shared on Frog and as part of the assessment as well as on classroom walls. In the front of each pupils book there will be a tracker grid which tracks pupil progress as they display competency in that subject.

We will report pupils' progress through KS3 using Current attainment, Projected attainment, Target attainment and effort as we do currently.

We will report Bishop Luffa Steps with degrees of competency rather than levels e.g. 3D- step 3 developing. You will find details of the course content for each year and the competencies being assessed in the following pages.

English

Course overview

In Key Stage 3 English at Bishop Luffa pupils develop their skills in the three areas of reading, writing, and speaking and listening. Pupils are encouraged to develop an appreciation and love of reading, and to read increasingly challenging material with independence. In writing, pupils make progress towards becoming fluent and accurate writers, able to adapt their style for different forms and purposes. Pupils are also taught to speak confidently and effectively through giving presentations, participating in drama tasks, and contributing to debates. The consolidation of grammar and vocabulary is embedded in schemes of work.

Assessment is via regular checking of students' books, as well as a number of more formally set and assessed tasks throughout the year. Each pupil will be made aware at the start of the academic year of the current Step within which they are working, and given a tracker sheet to monitor their progress in that Step from the first stage of 'launching,' to 'developing,' through to 'mastery.'

The majority of pupils are taught in mixed ability classes. In each KS3 year group, there are 8 such mixed ability classes, plus 2 smaller classes for pupils with additional literacy needs.

Year 7: Pupils have 7 English lessons per fortnight and study the following schemes of work:

- Autumn Term: Autobiography (2 weeks); The Island (5 weeks); A Christmas Carol (7 weeks)
- Spring Term: The Class Novel (7 weeks); Poetry (2 weeks)
- Summer Term: Big Issues (7 weeks); Play Script (7 weeks)

Year 8: Pupils have 6 English lessons per fortnight and study the following schemes of work:

- Autumn Term: Introduction to Shakespeare (7 weeks); Poetry (7 weeks)
- Spring Term: Travel Writing (6 weeks); Publisher's Intern (5 weeks)
- Summer Term: Experiences of War (14 weeks)

Year 9: Pupils have 6 English lessons per fortnight and study the following schemes of work:

- Autumn Term: Class Novel (10 weeks); Non-Fiction Reading and Writing (4 weeks)
- Spring Term: Romeo and Juliet (6 weeks); Global Literature 1 (5 weeks)
- Summer Term: Global Literature 2 (7 weeks); Literary Shorts (7 weeks)

English Steps – Reading

Step	Competency
1	<p>My reading responses are becoming clear</p> <ul style="list-style-type: none"> I can choose and comment on how writers use language features to convey events I can choose and comment on the effects of layout/ presentational devices I can choose and comment on the effects of themes I can choose and recall generally relevant information from the text when explaining my point of view I can recall and describe what I have read in my own words. I can mention things that happen in the text and give my opinion on them With guidance, I am beginning to ‘read between the lines’ I can read an extended text independently
2	<p>My reading responses are clear and consistent</p> <ul style="list-style-type: none"> I can locate and explain how writers use language to create effects. I can work out the meaning of words from the context (the action or events that take place within sentences and paragraphs) I can locate and explain how writers use structure/ presentational devices to create effects I can locate and explain how writers use themes to create effects I can locate quotations and information from the text (fiction and non-fiction) to support my views I can develop my explanations and make comparisons between and across texts I can comment on different layers of meaning, and explain with evidence my inferences and deductions I can read age appropriate books, including whole novels (i.e. range of extended texts, across different genres) independently
3	<p>My reading responses are confident</p> <ul style="list-style-type: none"> I can discuss in detail meaning, with relevant terminology, how writers achieve effects through language I can discuss meaning in detail, with relevant terminology, how writers achieve effects through structure and presentation I can discuss meaning in detail, with relevant terminology, how writers achieve effects through themes I can carefully select quotations and, where necessary, combine them with information from a variety of texts to support my views I can assemble comparisons between texts I can confidently develop inference and deduction to enhance my understanding of the text, and where relevant, explore how a text is influenced by its social, cultural, and historical context and how contexts influence interpretation I can read texts other than those recommended for my age group, exploring a range of genres, independently
4	<p>My reading responses are assured</p> <ul style="list-style-type: none"> I can interpret in detail, with relevant terminology, how writers achieve effects through language I can interpret in detail, with relevant terminology, how writers achieve effects through structure/ presentational devices I can interpret in detail, with relevant terminology, how writers achieve effects through themes I can distinguish between precise quotations and information from a variety of texts and use them carefully to support my views I can construct detailed comparisons between texts I can employ inference and deduction to enhance my analysis/interpretations of the text, and where relevant, explore how a text is influenced by its social, cultural, and historical context I can read challenging material, exploring a range of genres, independently

5	<p>My reading responses are sophisticated and impressive</p> <ul style="list-style-type: none"> I can analyse and evaluate perceptively how writers achieve effects through language I can analyse and evaluate perceptively how writers achieve effects through structure/ presentational devices I can analyse and evaluate perceptively how writers achieve effects through themes I can examine precise quotations and ideas from different texts, using them to effectively challenge my arguments I can formulate critical and insightful comparisons across a range of texts I can argue my own interpretation of texts, consistently drawing on sophisticated insights and wider textual knowledge when judging evidence. I can appraise how social, cultural, and historical contexts influence both writers and reader interpretations of a text I can read increasingly challenging material independently through reading a wide range of fiction and non-fiction, including from the English Literary Heritage and other cultures
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English Steps – Writing

Step	Competency
1	<p>My writing is becoming clear</p> <ul style="list-style-type: none"> I am beginning to use a variety of words and verb forms to keep the reader's interest and for effect My spelling of longer words is usually correct but I might make errors with homophones I can use simple, compound and complex sentences for variety, including linking subordinating connectives I can use basic punctuation accurately throughout my writing, including question marks, capital letters, full stops, and exclamation marks, commas for lists and apostrophes for contraction and possession I organise my writing clearly by using paragraphs and can link them so that the reader can follow my ideas I can use some language features to share my ideas, including description for characters and setting I understand the difference between Standard English and other styles Most of my ideas are interesting <p>N.B My handwriting is easy to read.</p>
2	<p>My writing is clear and consistent</p> <ul style="list-style-type: none"> I use a wide vocabulary to make my writing interesting depending on how formal my writing is My spelling is correct with some common errors I use different sentence types to make my writing more interesting, including adverbials, prepositions and expanded noun phrases (iSPACE). I can vary where the clauses go in my sentences I can use all the punctuation in Step 1 as well as speech marks, inverted commas, commas for clarity, brackets, semi colons, dashes, colons and hyphens I use paragraphs and connectives consistently, leading the reader through what I have written I can use language features well to hold the reader's interest for different purposes, such as creating atmosphere, using dialogue, exaggeration, similes etc I can write in Standard English and other styles, such as colloquial language for effect My ideas are interesting clear and consistent

3	<p>My writing is confident</p> <ul style="list-style-type: none"> ▪ I use exciting and precise vocabulary which is varied for effect, including changing my formality and experimenting with grammar ▪ My spelling is generally correct, including polysyllabic spellings ▪ I experiment with sentence types for effect, including the sentence types in step 1 and 2 and minor sentences ▪ I use a variety of punctuation effectively from Steps 1 and 2, as well as semi colons and colons to mark parts of clauses ▪ I use paragraphs and connectives to sequence my ideas confidently, varying paragraph length ▪ I use language features confidently, such as humour, sarcasm, rhetoric, personification etc according to purpose, audience and format ▪ I can write confidently in Standard English and a range of styles, varying my formality for effect ▪ My ideas are exciting, clear, consistent and relevant
4	<p>My writing is assured</p> <ul style="list-style-type: none"> ▪ I use a creative and original vocabulary for specific effect ▪ I use correct spelling, including that of uncommon spellings, throughout my writing ▪ I use varied sentence types for intended effect on the reader, and manipulate the position of clauses ▪ I use the full range and advanced punctuation securely within and between sentences, and for effect, including ellipsis and parenthesis ▪ My writing is thought-provoking and convincing. I express my ideas logically and creatively through a secure use of paragraphs and connectives. I can use a one sentence paragraph for effect ▪ I use an extensive range of language features thoughtfully to influence the reader which is linked to purpose, audience and format ▪ I can write assuredly in Standard English and a range of styles, influencing the formality I use ▪ My ideas are creative and imaginative
5	<p>My writing is sophisticated</p> <ul style="list-style-type: none"> ▪ I use an innovative and ambitious vocabulary for specific effect ▪ I use correct spelling, including that of complex words, throughout my writing ▪ I experiment with sentence types for powerful effect on the reader ▪ I use the full range and carefully select advanced punctuation for subtle effects ▪ My writing is imaginative and original. It is a pleasure to read! I structure my ideas logically and inventively through a varied use of paragraphs lengths and structures ▪ I imaginatively use a range of language features to influence the reader which is linked to purpose, audience and format ▪ I can write effectively in Standard English and a range of styles, manipulating the formality I use for specific effect ▪ My ideas are provocative and sophisticated

English Steps – Speaking and Listening

Steps	Competency
1	My speaking and listening is becoming clear <ul style="list-style-type: none"> In discussion, I can talk with clarity and listen in a variety of tasks In role, I can use obvious ideas to create simple characters and express a point of view I am beginning to change my speech to suit different purposes, asking questions and making comments I can use words carefully to describe events and present my opinion showing my understanding of the main points of discussion I use Standard English in most contexts
2	My speaking and listening is clear and consistent <ul style="list-style-type: none"> In discussion, I can take part, expressing straightforward ideas/ information/ feelings and showing understanding and sensitivity to others In role, I can develop roles and characters through suitable use of language, gesture and movement In presentations, I organise my talk logically and I can interest the listener through my expression and vocabulary I listen to questions/feedback and I provide an appropriate response in a straightforward way I can change how I speak to suit different purposes and audiences I am fluent in my use of Standard English
3	My speaking and listening is confident <ul style="list-style-type: none"> In discussion, I can make a range of contributions to develop conversation and debate In role, I can confidently shape roles and characters through suitable use of language, gestures, facial expression and movement In presentations, my talk is well organised to interest the audience using a wide vocabulary precisely and communicating confidently I listen to questions/feedback and I respond formally in detail I can adapt my talk in a wide range of demanding formal and informal situations I am confident in my use of Standard English
4	My speaking and listening is assured <ul style="list-style-type: none"> In discussion, I can make significant contributions, express challenging ideas/ information/ feelings and value others' ideas In role, I can create complex characters effectively through using a range of thoughtful dramatic approaches such as asides, dramatic irony, entrances and exits, tone In a presentation, I can organise my ideas in an assured way to meet the needs of the audience, using exciting vocabulary, tone of voice, volume and emphasis I carefully listen to questions/feedback and I respond formally in detail to elaborate on my ideas I can experiment with my style of talk to a demanding range of formal and informal situations I am assured in my use of Standard English and can adjust for effect
5	My speaking and listening is sophisticated <ul style="list-style-type: none"> In discussion, I can make substantial contributions, express sophisticated ideas/ information/ feelings and evaluate others' ideas In role, I can create multifaceted characters effectively through the skilful selection of dramatic approaches In a presentation, I can structure my talk creatively, using ambitious vocabulary, tone of voice, volume and emphasis to engage the audience I can listen perceptively to questions/feedback in order to elaborate on ideas I can manipulate my style of talk to a demanding range of formal and informal situations I am sophisticated in my use of Standard English and can modify for intended effect

Maths

Course overview

Mathematics at Bishop Luffa is much more than completing a set of questions or replicating a process that the teacher has just explained. It is more about generating strategies for solving problems, applying those approaches, seeing if they lead to solutions and checking that the answers generated make sense. We firmly believe mathematics cannot be taught successfully as a series of isolated topics and that real understanding can only be developed as pupils realise how new ideas are related or connected to other things they know.

Consequently throughout our KS3 programme our intention is for our pupils to create new knowledge from prior knowledge. Often this is achieved through the use of thought provoking questions that intentionally drive the learning from the “known” towards the “unknown.” This approach is based on internationally recognised best practice in learning mathematics but specifically on the Japanese approach to learning through problem solving. The point is that we believe that real understanding develops only as pupils reflect and communicate about mathematical problems for which they have no prescribed or memorised rules to follow.

We also think that it is important for the pupils to believe that is not necessarily a “correct” solution method but that there are many such methods. Their task is often to find as many solutions as possible to a specific problem before refining their ideas through classroom discussion. This approach then led us to define our overarching aim for our pupils.

Our Overarching Aim

“Our pupils will become independent thinkers (learners) who enjoy working together to produce creative solutions in unfamiliar situations.”

Objectives

Our pupils will

- *Enjoy doing mathematics* – to help students learn to enjoy and sense personal reward in the process of thinking, searching for patterns and solving problems.
- *Gain confidence and belief in their abilities* - to develop students’ confidence in their ability to do mathematics and to confront unfamiliar tasks
- *Be willing to take risks and to persevere* – to improve students’ willingness to attempt unfamiliar problems and to develop perseverance in solving problems without being discouraged by initial setbacks
- *Interact with others to develop new ideas* – to encourage students to share ideas and results, compare and evaluate strategies, challenge results, determine the validity of answers and negotiate ideas on which they all can agree.

Progression

Of course there is also a need for all pupils to develop mathematical proficiency through practise and there is a clear structure of what is expected of our pupils to demonstrate mastery at each step. Decisions about progression will be based on the security of pupils’ understanding (mastery) and their readiness to progress to the next step. Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems rather than any acceleration through new content in preparation for key stage 4. Those who are not sufficiently fluent will consolidate their understanding through tackling less demanding problems.

Maths Steps – Number

Step	Competency
At all steps	<ul style="list-style-type: none"> I can understand and use place value for decimals, measures and integers of any size I can order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols $=, \neq, <, >, \leq, \geq$ I can use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, square, cube, square root and cube root I can appreciate the infinite nature of the sets of integers, real and rational numbers I can use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals I can recognise and use relationships between any operations including inverse operations
1	<ul style="list-style-type: none"> I can round any whole number I can use negative numbers in practical contexts such as temperature and calculate intervals across zero [N5] I can count forwards or backwards in steps of any whole number with one significant figure, e.g. 9, 20, 3000 [N1] I can add and subtract whole numbers with more than four digits, using formal written methods where appropriate [C2] I can use their understanding of place value to multiply and divide whole numbers and decimals with up to two decimal places by 10 or 100 (e.g. $1532 \div 100 = 15.32$, $15.32 \times 100 = 1532$) [C6] I can multiply and divide whole numbers mentally drawing upon multiplication facts up to 12×12 and place value (e.g. 60×70) and begin to use these facts to work with larger numbers [C6] I can multiply numbers with up to two digits by a two digit number using the formal long multiplication method and becoming more confident with multiplication with larger numbers; multiply and divide numbers with up to four digits by a single digit number using the formal short division method and become more confident with division using larger numbers including the long division method. [C7] I can round decimals with two decimal places to the nearest whole number and to one decimal place I can solve problems involving number up to three decimal places I can add and subtract decimal numbers that have the same number of decimal places (e.g. $157.31 - 29.16$) [F10] I can multiply a one digit decimal number by a single digit number (e.g. 0.6×8) [F9] I can express one quantity as a fraction of another in simple cases I can compare and order fractions whose denominators are all multiples of the same number I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths I can recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example] I can add and subtract fractions with the same denominator and denominators that are multiples of the same number I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams I can read and write decimal numbers as fractions I can recognise and use fractional thousandths and relate them to tenths, hundredths and decimal equivalents I can recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal I can solve problems which require knowing fraction, percentage and decimal equivalents of halves, quarters, fifths and those fractions with a denominator of a multiple of 10 or 25

	<ul style="list-style-type: none"> ▪ I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination ▪ I can use the time to cover calculations (FEMA) and FDP
2	<ul style="list-style-type: none"> ▪ I can identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places ▪ I can multiply one-digit numbers with up to two decimal places by whole numbers ▪ I can use written division methods in cases where the answer has up to two decimal places ▪ I can solve problems which require answers to be rounded to specified degrees of accuracy ▪ I can compare and order fractions, including fractions > 1 ▪ I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions ▪ I can multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ▪ I can divide proper fractions by whole numbers [for example, ▪ I can associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, ▪ I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. ▪ I can recognise the relationship between fractions, decimals and percentages and can express them as equivalent quantities (e.g. one piece of cake that has been cut into 5 equal slices can be expressed as a fifth or 0.2 or 20% of the whole cake). ▪ I can calculate using fractions, decimals or percentages both as numbers and operators ▪ I can use ratio notation, including reduction to simplest form ▪ I can relate the language of ratios and the associated calculations to the arithmetic of fractions ▪ I can divide a given quantity into two parts in a given part:part ratio; express the division of a quantity into two parts as a ratio
3	<ul style="list-style-type: none"> ▪ I can round numbers and measures to different degrees of accuracy, for example to the nearest whole number or to one decimal place ▪ I can use the four operations, including formal written methods, applied to integers and decimals, all both positive and negative ▪ I have an understanding of numbers in contextual calculations ▪ I can round numbers and measures to an appropriate degree of accuracy, for example to the nearest whole number or to one decimal place ▪ I can use approximation, through rounding to the nearest whole number or to one decimal place, to estimate answers ▪ I can define percentage as 'number of parts per hundred', and know their decimal and fraction equivalents ▪ I can multiply proper and improper fractions, and mixed numbers ▪ I can work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and $\frac{7}{2}$ or 0.375 and $\frac{3}{8}$) ▪ I understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction ▪ I can solve problems involving direct proportion ▪ I can use compound units such as unit pricing to solve problems
4	<ul style="list-style-type: none"> ▪ I can state the multiplicative relationship between the numbers represented by any two digits in any number ▪ I can use prime factorisation ▪ I can use integer powers ▪ I can round numbers and measures to an appropriate degree of accuracy, for example to the nearest whole number or to one or two decimal places ▪ I can use approximation, through rounding to the nearest whole number or to one significant figure, to estimate answers

	<ul style="list-style-type: none"> I can relate percentages to decimals and fractions by showing their relative positions on a number line I can multiply and divide a whole number by a fraction, whether positive and negative I can interpret fractions and percentages as operators I can work interchangeably with terminating decimals their corresponding fractions and percentages (such as 3.5, $\frac{7}{2}$, and 350% or 0.375, $\frac{3}{8}$, and 37.5%) I can interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100% I can solve ratio problems where the part relationship is known rather than the total I can solve problems involving direct proportion, including graphical and algebraic representations
5	<ul style="list-style-type: none"> I can state in the form $A \times 10^n$ (n any positive or negative integer) the multiplicative relationship between the numbers represented by any two digits in any number I can round numbers and measures to different degrees of accuracy, for example, to a number of decimal places or significant figures I can use the four operations applied to real numbers, whether positive or negative I can use prime factorisation, including using product notation and the unique factorisation property I can use integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 I can distinguish between exact representations of roots and their decimal approximations I can interpret and compare numbers in standard form $A \times 10^n$ $1 \leq A < 10$, where n is a positive or negative integer or zero I can round numbers and measures to an appropriate degree of accuracy, for example, to a number of decimal places or significant figures I can calculate possible resulting errors expressed using inequality notation $a < x \leq b$ I can relate percentages to decimals and fractions, moving efficiently between the different forms in any context I can use $A = \frac{1}{n}$ of B implies $B = nA$, and $A = n\%$ of B implies $B = \frac{(100A)}{n}$ I can work interchangeably with terminating decimals their corresponding fractions and percentages, and know the fraction and percentage equivalents of some common recurring decimals (such as 3.5, $\frac{7}{2}$, and 350% or 0.375, $\frac{3}{8}$, and 37.5%, or 0.33333..., $\frac{1}{3}$ and 33$\frac{1}{3}\%$) I can understand why an “n% increase” is not the inverse operation of an “n% decrease” I can solve problems involving inverse proportion, including graphical and algebraic representations I can use compound units such as speed and density to solve problems

Maths Steps – Algebra

Step	Competency
At all steps	<ul style="list-style-type: none"> I understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors
1	<ul style="list-style-type: none"> I can make and use word formulas by modelling real world situations or procedures I can substitute positive whole numbers into word formulas to find the value of the subject. I can use and interpret algebraic notation including: ab in place of $a \times b$, $3y$ in place of $3 \times y$ I can substitute numerical values into simple algebraic formulas that model real world situations or procedures I can simplify expressions by collecting like terms I can continue simple sequences and can explain how to find the next term I can find missing numbers in a number sequence

	<ul style="list-style-type: none"> I can generate terms of a sequence from a term-to-term rule including practical examples such as matchstick patterns I can begin to investigate linear sequences when the n^{th} term is given
2	<ul style="list-style-type: none"> I can use interpret algebraic notation, including: ab, $3y$ in place of $y + y + y$, a^2 in place of $a \times a$, a^3 in place of $a \times a \times a$, a^2b in place of $a \times a \times b$, x/y instead of $x \div y$, coefficients written as fractions rather than decimals I can set up and solve one-step equations with integer coefficients. I can use simple function machines to deal with inputs and outputs, recognising basic inverse functions. I can model situations or procedures by translating them into simple algebraic formulas. I can understand and solve problems involving exchange rate I can understand and solve problems involving unit costs I can generate terms of a sequence from a term-to-term or a position to term rule I can begin to generalise their results in words
3	<ul style="list-style-type: none"> I can create and solve two-step equations that model real world situations or procedures I can simplify and manipulate expressions to maintain equivalence by multiplying a single term over a bracket and taking out common factors I can rearrange simple formulae to change the subject I can use the rules of indices for positive whole number powers I can model and interpret real life situations or procedures graphically I can plot graphs of linear functions I can find the position to term formula for given linear sequences and for linear sequences that arise from modelling real world situations I can investigate and recognise special sequences such as triangular numbers, square numbers and Fibonacci numbers
4	<ul style="list-style-type: none"> I can create and solve equations using brackets and where the unknown appears on both sides of the equation I can simplify and manipulate algebraic expressions to maintain equivalence by expanding products of two or more binomials I can use the rules of indices for positive and negative whole number powers I can form and solve simple linear inequalities in one variable and represent the solution set on a number line I can calculate and interpret gradients and intercepts of graphs of linear equations in the standard form $y = mx + c$ numerically, graphically and algebraically I can recognise and generate lines that are parallel to a given line and pass through a given point I can plot quadratic and cubic graphs and use then to estimate values of y for given values of x and vice versa I can solve quadratic equations graphically I can recognise and can sketch simple quadratic and cubic graphs I can generate terms a quadratic sequence from a position to a term rule
5	<ul style="list-style-type: none"> I can use more complex formula; they substitute positive and negative numbers into formulas that involve powers and roots I can rearrange complex formulae to change the subject, including cases where the new subject appears twice or includes powers and roots I can use trial and improvement methods to solve equations that do not have an analytical solution that is accessible to pupils I can use the rules of indices for positive and negative whole number and fractional powers I can find the exact solution of two simultaneous equations in two unknowns by eliminating a variable, and interpret the equations as lines and their common solution as the point of intersection I can find the exact solution of two simultaneous equations in two unknowns by substitution I can find the rule for simple quadratic sequences (i.e. coefficient of n^2 is one) I can recognise geometric sequences and find the term to term rule
5+	<ul style="list-style-type: none"> recognise geometric sequences and find the position to term rule Factorise simple quadratic expressions where the coefficient of $x^2 = 1$

Maths Steps – Geometry and Measures

Step	Competency
At all steps	<ul style="list-style-type: none"> I can use the standard conventions for labelling the sides and angles of triangle ABC I can draw and measure line segments and angles in geometric figures, including interpreting scale drawings I can describe, sketch and draw: points, lines, parallel lines, perpendicular lines, right angles. use conventional terms and notations, such as using 'dashes' to indicate equal lengths and (multiple) arrows to indicate parallel lines I can derive and illustrate properties of circles
1	<ul style="list-style-type: none"> I can compare and classify 3-D and 2-D shapes based on their properties (e.g. for 2-D shapes: parallel sides, length of sides, type and size of angles [G4], reflective symmetry [G2], regular / irregular polygons [G2]; for 3-D shapes: faces, vertices and edges) [G2] I can recognise and describe simple 3-D shapes, including using nets and other 2-D representations [G3] I can complete simple shapes using given lengths, such as 7.5cm, (accurate to +/- 2 mm) and acute angles that are multiples of 5° (accurate to +/- 2°) [G3] know and use the facts that angles at a point sum to 360°, angles at a point on a straight line sum to 180° and angles in a triangle sum to 180° (e.g. calculate the base angles of an isosceles triangle where the other angle is 110°) and identify other multiples of 90° [G4] I can identify, describe; and represent the position of a shape following a reflection or translation [P2] I can describe positions on a 2-D co-ordinate grid using axes with equal scales in the first quadrant (in the context of number or geometry) and use co-ordinates to complete a given rectangle; become more confident in plotting points in all four quadrants [P3] I can read, write and convert time between analogue (including clock faces using Roman numerals) and digital 12 and 24- hour clocks, using a.m. and p.m. where necessary [M4] I can calculate the duration of an event using appropriate units of time (e.g. A film starts at 6:45p.m. and finishes at 8:05p.m. How long did it last?) [M4] I can convert between 'adjacent' metric units of measure for length, capacity and mass (e.g. 1.2 kg = 1200 g; how many 200 ml cups can be filled from a 2 litre bottle?; write 605 cm in metres) [M5] I can find the perimeter of compound shapes when all side lengths are known or can be easily determined (e.g. a simple shape made from two identical rectangles joined together to make an L-shape with given dimensions of the rectangle) [M7] I can calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes by counting squares [M7]
2	<ul style="list-style-type: none"> I can compare and classify geometric shapes based on their properties and sizes [G2a] I can draw 2-D shapes using given dimensions and angles [G3a] I can describe and build simple 3-D shapes, including making nets [G3b] I can find unknown angles in any triangles, quadrilaterals, and regular polygons [G4a] I can derive and apply formulae to undertake calculations and solve problems involving perimeter and area of rectangles I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles [G4b] I can apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles I can illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius [G5] I can draw and translate simple shapes on the co-ordinate plane, and reflect them in the axes [P2] I can describe positions on the full co-ordinate grid (all four quadrants) [P3]

	<ul style="list-style-type: none"> ▪ I can use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places [M5] ▪ I can convert between miles and kilometres [M6] ▪ I can recognise that shapes with the same areas can have different perimeters and vice versa [M7] ▪ I can recognise when it is possible to use formulae for area and volume of shapes [M7] ▪ I can calculate the area of parallelograms and triangles [M7] ▪ I can calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units (for example, mm^3 and km^3) [M8] ▪ I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places [M9]
3	<ul style="list-style-type: none"> ▪ I can classify quadrilaterals by their geometric properties, and provide convincing arguments to support classification decisions ▪ I can use the properties of faces, surfaces, edges and vertices of cubes and cuboids to solve problems in 3-D ▪ I can draw, sketch and describe regular polygons, and other polygons that are reflectively and rotationally symmetric; ▪ I can derive and illustrate properties [for example, equal lengths and angles] of triangles, quadrilaterals, and other plane figures using appropriate language and technologies ▪ I can construct similar shapes by enlargement, with and without coordinate grids ▪ I can apply translations, rotations and reflections to given figures, and identify examples of translations, rotations and reflections (for example, be able to pick out from a group of shapes those that are translations, rotations or reflections of a given shape) ▪ I can draw and measure line segments and angles in geometric figures; calculate lengths represented by line segments in scale drawings given scale factors as ratios in the form $1 : n$, and understand that the lengths are approximate ▪ I can derive and apply formulae to undertake calculations and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) ▪ I can derive and use the sum of angles in a triangle ▪ I can undertake calculations and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes
4	<ul style="list-style-type: none"> ▪ I can derive and use the standard ruler and compass constructions (perpendicular bisector of a line segment, constructing a perpendicular to a given line from/at a given point, bisecting a given angle); recognise and use the perpendicular distance from a point to a line as the shortest distance to the line ▪ I can use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms and cylinders to solve problems in 3-D ▪ I can construct similar shapes by enlargement, with coordinate grids using fractional and negative scale factors ▪ I can find the centre of enlargement and SF when given the object and image of a n enlargement ▪ I can understand implications of the accuracy of the measurements for the accuracy of the calculated lengths ▪ I can use Pythagoras' Theorem to solve problems involving right-angled triangles ▪ I can use conventional terms and notations, such as complementary to describe angles with a sum of 90° and supplementary to describe angles with a sum of 180° ▪ I can understand and use the relationship between parallel lines and alternate and corresponding angles. Use vertically opposite angles and other angle relationships to solve angle problems ▪ I can use the sum of angles in a triangle to deduce the angle sum in any polygon, and to derive properties of regular polygons

	<ul style="list-style-type: none"> I can derive and apply formulae to undertake calculations and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders)
5	<ul style="list-style-type: none"> I can use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres to solve problems in 3-D I know that translations, rotations and reflections map shapes onto congruent shapes; understand that the relation 'is congruent to' implies that there exists a translation, rotation or reflection that takes one shape to another I can identify properties of, and describe the results of, translations, rotations and reflections applied to given figures; know that any reasoning using these transformations could be replaced by reasoning using congruence criteria, and be familiar with some examples I can use Pythagoras' Theorem and trigonometric ratios in similar triangles to solve problems involving right-angled triangles I can identify and construct congruent triangles, with and without coordinate grids
5+	<ul style="list-style-type: none"> I can use construction methods to: investigate what happens (for example to the angle bisectors, or perpendicular bisectors of sides, of triangles) in changing situations; explore derived shapes, such as circumcircles and inscribed circles of triangles, and other polygons (where possible) I know and use the criteria for congruence of triangles I can apply angle facts, triangle congruence, similarity and properties of quadrilaterals to derive results about angles and sides, including Pythagoras' Theorem, and use known results to obtain simple proofs

Maths Steps – Probability and Statistics

Step	Competency
At all steps	<p>Probability</p> <ul style="list-style-type: none"> I can emphasise the difference between being absolutely sure and probably sure about something happening I can make sure everyone understands that probability is the study of the chances of something happening I understand and test the idea of fairness I can emphasise that we study probability so that we can make predictions over the long term rather than the predictions about individual events. Link this to the law of large numbers. I can use experimental probabilities I can emphasise 'gut reaction', experimental probability and theoretical probability <p>Statistics</p>
1	<p>Probability</p> <ul style="list-style-type: none"> I can explain what is meant by a probability scale and position key words on that scale I can list all possible outcomes for two events such as choosing from a menu I can investigate simple games <p>Statistics</p> <ul style="list-style-type: none"> I can complete, read and interpret information presented in tables, pictograms and bar charts (e.g. find the difference between two bars showing temperatures, where one is 20°C and the other is 13°C, on a scale labelled in multiples of 5) [S1] I can interpret line graphs (e.g. begin to find the difference between two temperatures on a line graph, where one is 20°C and the other is 13°C, on a scale labelled in multiples of 5) and simple pie charts (e.g. a pie chart cut into eight pieces for favourite fruit using whole numbers for each section) [S1]

	<ul style="list-style-type: none"> I can plot and interpret scatter diagrams - describe mathematical relations between the two variables in simple words. I can calculate the mean as an average for simple sets of discrete data (e.g. find the mean mass of three parcels weighing 5 kg, 3 kg and 10 kg) [S3] I can summarise data using the mean, mode as “representative or typical” values and the range as a measure of spread
2	<p>Probability</p> <ul style="list-style-type: none"> I can mark events and/or probabilities on a probability scale of 0 to 1 I can find and justify probabilities by considering equally likely outcomes for single events I can list all possible outcomes for three events such as from a menu I can investigate more complicated game <p>Statistics</p> <ul style="list-style-type: none"> I can interpret and construct pie charts and line graphs and use them to solve problems [S1] I can describe, interpret and compare two simple datasets of a single variable through: appropriate graphical representations I can plot and interpret scatter diagrams - describe mathematical relations between the two variables in less obvious cases I can calculate the mean and interpret the mean as an average [S3] I can calculate the range and interpret the range as a measure of spread I can describe, interpret and compare two simple datasets of a single variable through: by considering the mean or median or mode and range of the datasets
3	<p>Probability</p> <ul style="list-style-type: none"> I can use systematic listing strategies to list all possible outcomes for four events such as tossing four coins I can record outcomes of probability experiments in tables I can use a two circle Venn diagram to calculate related probabilities I can enumerate sets systematically making use of tables and grids I can investigate games <p>Statistics</p> <ul style="list-style-type: none"> I can describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, ungrouped data in simple frequency tables I can construct and interpret frequency tables, bar charts, pie charts, and stem and leaf diagrams for simple categorical data, and vertical line (or bar) charts for small sets of ungrouped numerical data and numerical data grouped into a small number of groups I can recognise graphical misrepresentation through incorrect scales, labels etc. I can plot and interpret scatter diagrams recognize and use the language of correlation I can describe, interpret and compare observed distributions of a single variable through: appropriate measures of central tendency (mean, mode, median) and spread (range) involving discrete, ungrouped data in simple frequency tables
4	<p>Probability</p> <ul style="list-style-type: none"> I can understand why, when there are only two possible outcomes, the probabilities of the two possible outcomes sum to 1 I can use a two circle Venn diagram to enumerate sets, and use this to calculate related probabilities I can use simple set notation to describe simple sets of numbers and objects I can generate theoretical sample spaces for single and combined events with equally likely, mutually exclusive outcomes and use these to calculate theoretical probabilities <p>Statistics</p> <ul style="list-style-type: none"> I can describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete grouped data I can construct and interpret frequency tables, bar charts, pie charts, and pictograms for larger sets of categorical data, and vertical line (or bar) charts for larger sets of ungrouped and grouped numerical data

	<ul style="list-style-type: none"> ▪ I can identify an outlier in simple cases and appreciate there may be errors in data from values (outliers) that do not 'fit' ▪ I can plot and interpret scatter diagrams - draw a line of best fit by eye and use it to make predictions. Discuss implications of outliers ▪ I can interpolate and extrapolate from data and be aware of the limitations of these techniques ▪ I can define the population in a study and understand the difference between population and sample ▪ I can describe, interpret and compare observed distributions of a single variable through: appropriate measures of central tendency (mean, mode, median) and spread (range) ▪ I can infer the properties of populations or distributions from a sample ▪ I understand what is meant by simple random sampling and bias in sampling
5	<p>Probability</p> <ul style="list-style-type: none"> ▪ I can understand that the probabilities of all possible outcomes sum to 1 ▪ I can enumerate sets and unions/intersections of sets systematically, using tables, grids and Venn diagrams ▪ I can use tree diagrams to calculate the probability of two independent events ▪ I can understand selection with or without replacement ▪ I can use Venn diagrams to calculate conditional probability ▪ I can draw a frequency tree based on given information and use this to find probability and expected outcome <p>Statistics</p> <ul style="list-style-type: none"> ▪ I can describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete or continuous grouped data ▪ I can construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts, and pictograms for categorical data, and vertical line (or bar) charts for ungrouped and grouped numerical data ▪ I can plot and interpret scatter diagrams - interpret correlation within the context of the variables and appreciate the distinction between correlation and causation ▪ I can describe, interpret and compare observed distributions of a single variable through: appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers) ▪ I can draw and interpret cumulative frequency diagrams and boxplots

Science

Course overview

The science faculty aims to allow pupils to develop a deep scientific knowledge and conceptual understanding across the three disciplines and provide opportunities for different types of scientific enquiry that help them to answer scientific questions about the world around them. This scientific knowledge will allow pupils to be able to describe the uses and implications of science. Pupils will become resilient and reflective independent learners who enjoy working collaboratively and creatively in unfamiliar and challenging situations.

Key Stage 3 Curriculum

Across KS3, Science is taught using a detailed scheme of work based around Pearson's 'Exploring Science' scheme. The course not only allows pupils to develop a deep and secure scientific knowledge, but also progressively develops pupils' ability to "work scientifically". Literacy and numeracy are fully integrated into its core teaching strategy in preparation for the new GCSE specifications. All pupils have the opportunity to access interactive, online resources to support homework tasks, revision and independent study.

During each year in KS3, pupils study 4 Biology, 4 Chemistry and 4 Physics topics, with pupils studying a mix of Science topics each term. Each topic contains 7-8 hours teaching time. For summative assessment, pupils complete a short test at the end of each topic as well as three level-assessed Working Scientifically Investigations each year and three "assess yourself" tasks, one of each for the three sciences.

In Year 7, pupils are taught science for 6 periods a fortnight and all classes are mixed ability. In Year 8 students are again taught in mixed ability groups for 6 periods a fortnight. In year 9, the most able scientists are placed in 4 groups, with the remainder of pupils taught in mixed ability sets.

Year 7

Biology

7A - Cells, tissues, organs and systems: this unit starts by reminding students about the features of organisms, and then looks at organs, tissues and cells.

7B - Sexual reproduction in animals: this unit explores sexual reproduction in animals including the human reproductive system and sexual reproduction in humans.

7C - Muscles and bones: this unit uses a 'fitness' theme to cover three important organ systems: the gas exchange system, the circulatory system and the loco motor system.

7D - Ecosystems: with a general theme about explorers, this unit looks at ecosystems and the factors that affect them. This includes the impact of human activity and the importance of biodiversity.

Chemistry

7E - Mixtures and separation: this unit focuses on mixtures, solutions and separation techniques using the context of providing clean drinking water.

7F - Acids and alkalis: this unit looks at acids and alkalis and how they are described using a pH number.

7G - The particle model: this unit develops an understanding of the different properties of solids, liquids and gases within the context of waste management and disposal.

7H - Atoms, elements and compound: this unit expands on particle theory and explains the differences between atoms, and molecules, elements and compounds.

Physics

7I - Energy: this unit introduces the idea that stores of energy are needed to make most things happen. It looks at food, energy stores and transfers, and energy resources.

7J - Current electricity: this unit looks at the measurement of current and how it behaves in series and parallel circuits, and at voltage and resistance.

7K - Forces: this unit revises the concepts of forces and their effects and extends students' knowledge of friction, gravity and springs.

7L – Sound: this unit looks at how sounds are made, transmitted and detected, some uses of sound and compares sound waves with waves on the surface of water.

Year 8

Biology

8A – Food and nutrition: this unit looks at the main components in the human diet and why they are needed. The digestive system is also covered in some detail, and the idea of enzymes is introduced.

8B – Plants and their reproduction: this unit covers sexual and asexual reproduction in plants. Classification and biodiversity are also covered.

8C – Breathing and respiration: this unit covers gas exchange in humans and other organisms, together with details of aerobic and anaerobic respiration in humans.

8D – Unicellular organisms: this unit takes a detailed look at what unicellular organisms are, the differences between different types, their problems and their uses.

Chemistry

8E – Combustion: this unit uses the context of combustion engines to cover combustion and oxidation reactions, including those of hydrocarbons, metals and non-metals.

8F – The periodic table: this unit uses the context of fireworks to develop students' understanding of matter, atoms and chemical and physical change.

8G – Metals and their uses: this unit uses the context of metals used in building to review common physical properties of metals, and to introduce their main chemical properties.

8H – Rocks: this unit examines the different types of rock and the processes that bring about their formation, leading to the idea of a rock cycle that operates within a huge geological timescale.

Physics

8I – Fluids: this unit looks at changes of state, and then goes on to look at fluids and some of their effects, including pressure, floating and sinking, and drag.

8J – Light: this unit revises work from KS2 on light, which is then extended to consider how light travels and what happens when it meets an object.

8K – Energy transfers: this unit looks at energy transfers by heating in the context of homes.

8L – Earth and Space: this unit builds on work from KS2 on the Solar System and looks at the Earth, including the seasons and the Earth's magnetic field and gravity.

Year 9

Biology

9A – Genetics and evolution: this unit covers a recap of variation and then looks at inherited variation. DNA is introduced before students consider how inherited genes can affect an organism's survival.

9B – Plant growth: this unit looks at photosynthesis and aerobic respiration in plants in more detail, and then considers plant adaptations.

Chemistry

9E – Making materials: this unit looks at the manufacture, properties and uses of different types of materials. The first three topics introduce examples of ceramic, polymer and composite materials.

9F – Reactivity: this unit looks at physical changes and gas pressure, then the reactivity series and a chemical method of preventing rusting is covered. Exothermic and endothermic reactions are introduced.

Physics

9I – Forces and motion: this unit starts by revising some aspects of forces and their effects, energy stores and transfers. It then looks at calculations of speed and relative speed.

9J – Force fields and electromagnets: this unit starts by revising previous work on magnetic and gravitational fields, and then introduces static electricity and the idea of an electric field. Work on current electricity is also revised.

Progression through the science curriculum

The science faculty have adopted a slightly difference system of Steps to the rest of the curriculum. The fundamentals are the same, though because of the topic based nature of the curriculum we have year specific objectives for each step. These have been produced broadly based on the following principles:

Step 1: pupils recall knowledge and understanding of scientific principles.

Step 2: pupils describe scientific principles and phenomena

Step 3: pupils describe some processes and phenomena drawing on abstract ideas and using appropriate scientific terminology

Step 4: pupils describe some processes and phenomena drawing on abstract ideas and using appropriate terminology. They are able to take account of a number of factors or use abstract ideas or models in their explanations of processes and phenomena

Step 5: pupils describe a wide range of processes and phenomena, using abstract ideas and appropriate terminology and sequencing a number of points. Pupils demonstrate extensive knowledge and understanding. They are able to explain, using abstract ideas where appropriate, the importance of some applications and implications of science.

Science – Biology Steps (Year 7)

Step	Competency
1	<ul style="list-style-type: none"> I can remember the 7 basic life processes and use these to identify if something is living or non-living. I can also state that cells are the "building blocks" of organisms and can name simple organs and their functions I can name and describe the functions of some tissues and organs in the human reproductive systems I can remember the role of the circulatory and skeletal system I can identify ways in which an animal is suited to its environment [for example, a fish having fins to help it swim]
2	<ul style="list-style-type: none"> I can describe a tissue, an organ and an organ system and describe how multicellular organisms are organised I can explain how gametes are involved in fertilisation and how the fertilised egg develops in the womb I can identify and describe the functions of parts of the skeletal and muscular systems I can describe how organisms are interdependent, for example using food chains to describe feeding relationships between plants and animals in a habitat
3	<ul style="list-style-type: none"> I can describe the structure of cells, and the function of their organelles. I can also describe the structure of a tissue, an organ and an organ system and describe how multicellular organisms are organised I can describe the stages of pregnancy and birth. I can also describe the stages of the menstrual cycle I can recall the structure and functions of the human skeleton, and the interaction between the skeleton and muscles. I can also measure the force exerted by different muscles and the function of muscles I can explain why almost all life on Earth depends on photosynthetic organisms. I can explain that organisms are found in different habitats because of differences in environmental factors. I can link adaptations of organisms to their habitat

Science – Biology Steps (Year 8)

Step	Competency
2	<ul style="list-style-type: none"> I can list the contents of a healthy human diet and describe why each part is needed I can describe the process of fertilisation in a plant and explain different ways that the seeds are dispersed I can describe the mechanism of breathing to move air in and out of the lungs. I can also name and describe the two types of respiration, and I can list the reactants and products of these I can identify the structural adaptations of some unicellular organisms
3	<ul style="list-style-type: none"> I can describe the components of a healthy human diet (carbohydrates, lipids (fats and oils), proteins, vitamins, minerals, dietary fibre and water), and explain why they are needed. I can relate the consequences of an imbalance in the diet to specific health issues (obesity, starvation and deficiency diseases) I can describe the different processes involved in plant reproduction (including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal). I can also understand that both evidence and creative thinking contribute to make scientific ideas, such as the classification of living things I can explain how structures in the human gas exchange system are adapted to their functions I can identify structural adaptations of microorganisms and describe uses microorganisms in different situations
4	<ul style="list-style-type: none"> I can explain the reason for the different components of a healthy human diet and am able to calculate the energy requirements of a healthy human diet. I can link adaptations of different parts of the digestive system to their functions I can understand that both evidence and creative thinking contribute to make scientific ideas, such as the classification of living things. I can also apply and use knowledge and understanding in new situations, such as identifying the method of seed dispersal in different plants. I am able to recall the word equation for aerobic respiration and anaerobic respiration in humans and microorganisms, including the idea of formation and the effect of lactic acid build up. I am able to link a number of factors and abstract ideas or models in my explanation of the recycling of carbon

Science – Biology Steps (Year 9)

Step	Competency
3	<ul style="list-style-type: none"> I can describe, in detail, the role of DNA, genes and chromosomes in heredity I can describe that variation between species and between individuals of the same species means some organisms compete more successfully. I can also explain that this variation between individuals within a species can be continuous or discontinuous I can list the reactants and products of photosynthesis and summarise these in a word equation. I can explain how plants make carbohydrates in their leaves and gain mineral nutrients and water from the soil I can explain how some structural adaptations of plants' leaves aid photosynthesis
4	<ul style="list-style-type: none"> I can describe some evidence for the causes of variation between living things. I can link variation to the role of DNA, genes and chromosomes in heredity I know the differences between species and that changes in the environment may leave individuals within a species, and some entire species, less well adapted. I understand that these will compete less successfully and fail to reproduce, which in turn may lead to extinction I can explain how plants are adapted for photosynthesis (including the word equation) and an understanding of gas exchange through the stomata and transpiration (including the route of water movement through the plant) I can make suggestions to improve the yield of crops grown by farmers and link these to potential environmental problems
5	<ul style="list-style-type: none"> I can understand a simple model of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and Franklin in the development of the DNA model I can use knowledge about Intra and interspecies variation to explain how this can drive natural selection. I can describe the stages in natural selection and how this can lead to extinction I can explain how plants are adapted for photosynthesis (including the word equation) and an understanding of gas exchange through the stomata and transpiration (including the route of water movement through the plant). I can link adaptations a plant may have with the habitat it is found in I can make suggestions to improve the yield of crops grown by farmers and link these to potential environmental problems. I can link environmental problems caused by pesticides and fertilisers with their impact on other organisms

Science – Chemistry Steps (Year 7)

Step	Competency
1	<ul style="list-style-type: none"> I can explain that some substances are pure and that some are impure and has a basic knowledge of separating mixtures I can state that different acids and alkalis may have different strengths I can name and describe the properties of the three states of matter I have a basic understanding of the periodic table and know that it contains groups of elements
2	<ul style="list-style-type: none"> I can identify simple techniques for separating mixtures and select appropriate techniques for separating given mixtures I can state the purpose of an indicator and describe how Universal indicator is used to find the strength of an acid or alkali using the pH scale I can name and describe the properties of the three states of matter and can explain the states in terms of particles I can represent elements using chemical symbols
3	<ul style="list-style-type: none"> I can describe how to carry out simple techniques for separating mixtures I can describe neutralisation and provide examples of neutralisation in everyday life I can explain the properties of the three states of matter with reference to the particle model I can represent chemical reactions using word equations

Science – Chemistry Steps (Year 8)

Step	Competency
2	<ul style="list-style-type: none"> I can describe combustion and oxidation as examples of chemical reactions I have some understanding of the periodic table and know that groups of elements have similar properties I can list the properties of metals and non-metals and I can describe how these properties make them suitable for different uses I can describe the structure and processes within the earth and am able to describe how the earth's resources are used
3	<ul style="list-style-type: none"> I can describe combustion and oxidation with word equations and I can also state that metal and non-metal oxides react differently with water and I can describe these differences I have an understanding of chemical properties, atomic structure and patterns in the periodic table and can link these to the properties of elements I can describe the properties of metals and also I can explain how metals react with water using word equations I have knowledge of the current theories for the structure, composition and processes within the earth and am able to describe sustainable use of the earth's resources
4	<ul style="list-style-type: none"> I can describe combustion and oxidation with word equations and I can also state that metal and non-metal oxides react differently with water and I can describe these differences. I can describe the impact of the combustion of fuels on the atmosphere I can link knowledge of chemical properties and atomic structure to patterns in the periodic table and use these to explain the properties of elements I can represent various chemical reactions using formulae and symbol equations including the reactions between metals and water and metals and acid I have a detailed knowledge of the current theories for the structure, composition and processes within the earth and am able to link these with sustainable use of the earth's resources

Science – Chemistry Steps (Year 9)

Step	Competency
3	<ul style="list-style-type: none"> I am able to name some polymers and describe their properties and uses I am able to identify some environmental impacts from the manufacture of different materials I am able to understand some chemical reactions and can describe the products formed, the energy changes and observations. I can state that energy may be released or absorbed during chemical reactions, and I can describe how the temperature of the surroundings changes during a chemical reaction I can describe simple displacement reactions when given the order of metals and carbon in the reactivity series
4	<ul style="list-style-type: none"> I am able to name some polymers and describe their properties and uses. I can describe the structure of polymers using models I am able to identify some environmental impacts from the manufacture of different materials and provide some suggestions to minimise the environmental impact I am able to understand some chemical reactions and can describe the products formed, the energy changes and observations. I can state that energy may be released or absorbed during chemical reactions, and I can describe how the temperature of the surroundings changes during a chemical reaction. I can represent various chemical reactions using formulae and symbol equations I can predict the outcomes of simple displacement reactions when given the order of metals and carbon in the reactivity series
5	<ul style="list-style-type: none"> I am able to name some polymers and describe their properties and uses. I can describe the structure of polymers using models and describe their formation I am able to identify some environmental impacts from the manufacture of different materials and provide some suggestions to minimise the environmental impact. I can analyse the effectiveness of recycling I am able to understand some chemical reactions and can describe the products formed, the energy changes and observations. I can state that energy may be released or absorbed during chemical reactions, and I can describe how the temperature of the surroundings changes during a chemical reaction. I can represent chemical reactions using balanced symbol equations I can discuss and suggest methods that may be used to extract metals more reactive than carbon

Science – Physics Steps (Year 7)

Step	Competency
1	<ul style="list-style-type: none"> I can name the energy type that is stored in food and fuel and can compare energy values of different foods in kJ (using food labels) I can use simple scientific ideas and evidence I have collected to explain my observations, for example using a switch to turn off a light bulb in an electrical circuit I know that a force is a push or a pull and is measured in Newtons. I can also show forces using arrows, which show both the direction and size of the force I can make general statements such as sounds getting fainter the further the listener is from the source
2	<ul style="list-style-type: none"> I can name the energy type that is stored in food and fuel and can compare energy values of different foods in kJ (using food labels) and I can describe several situations where energy is transferred I can use simple scientific ideas and evidence I have collected to explain my observations, for example using a switch to turn off a light bulb in an electrical circuit. I am able to construct both series and parallel circuits I know that a force is a push or a pull and is measured in Newtons. I can also show the direction and size of a force using arrows. I can describe the effect of changing pressure on an object. I can also calculate pressure using a given equation I can make general statements such as sounds getting fainter the further the listener is from the source. I can state that sound is produced by vibrations and name some devices that detect sound
3	<ul style="list-style-type: none"> I can name the energy type that is stored in food and fuel and can compare energy values of different foods in kJ (using food labels), I can describe situations where energy is transferred and how the energy in different energy resources can be used I can use simple scientific ideas and evidence I have collected to explain my observations, for example using a switch to turn off a light bulb in an electrical circuit. I am able to construct both series and parallel circuits I know that a force is a push or a pull and is measured in Newtons. I can also the direction and size of the force using arrows. I can describe the effect of changing pressure on an object, ways of increasing and decreasing pressure. I can calculate pressure and explain the effects of pressure in terms of particles I can make general statements such as sounds getting fainter the further the listener is from the source. I can state that sound is produced by vibrations and name devices that detect sound. I can describe what frequency is and measured in

Science – Physics Steps (Year 8)

Step	Competency
2	<ul style="list-style-type: none"> I can describe similarities and differences between particles in solids, liquids and gases, particularly in terms of their motion and how close they are to each other I can state that during specular reflection in a plane mirror, the angle of incidence is always equal to the angle of reflection I can state that thermal energy is transferred by conduction in solids, convection in liquids and radiation in vacuums and transparent objects. I can state that thermal energy is transferred from hotter objects to colder objects I can state that gravity is a non-contact force that affects objects within a gravitational field. I can state that all objects have a gravitational field, that this varies in strength and that the gravitational field strength of Earth is 10 N
3	<ul style="list-style-type: none"> I am able to describe similarities and differences between particles in solids, liquids and gases, particularly in terms of their motion and how close they are to each other. I can calculate density when given the mass and volume of an object I can state that during specular reflection in a plane mirror, the angle of incidence is always equal to the angle of reflection. I can describe refraction using a ray model diagram I can describe and explain how thermal energy is transferred by conduction, convection and radiation I can describe how the gravitational field strength of an object changes due to the size (mass) of the object
4	<ul style="list-style-type: none"> I am able to describe similarities and differences between particles in solids, liquids and gases, particularly in terms of their motion and proximity to each other. I can calculate density when given the mass and volume of an object I can use calculations of density to predict whether an object will float or sink I can state that during specular reflection in a plane mirror, the angle of incidence is always equal to the angle of reflection. I can describe refraction using a ray model diagram. I can describe how white light is a mixture of colours with reference to frequency, and I can explain how a prism may be used to diffuse the different colours of light, with reference to refraction and wave speed. I can describe and explain how thermal energy is transferred by conduction, convection and radiation. I can calculate energy efficiency I can calculate weight when given mass and gravitational field strength

Science – Physics Steps (Year 9)

Step	Competency
3	<ul style="list-style-type: none"> I can calculate the average speed of an object I can explain how levers work to multiply force I can define the term 'direct current' I can list some uses of electromagnets
4	<ul style="list-style-type: none"> I can calculate the average speed of an object I can explain how levers work to multiply force I can define the term 'direct current' I can list some uses of electromagnets

5	<ul style="list-style-type: none"> ▪ I can interpret resultant forces to predict the effect on an object's motion ▪ I can explain how levers work to multiply force I can calculate moments and resultant moments ▪ I can calculate resistance when given potential difference and current ▪ I can suggest some applications for materials of higher or lower resistance ▪ I can describe how to make an electromagnet and increase the strength of an electromagnet and I can describe how to make a simple motor using electromagnetism and a bar magnet
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Science – Working Scientifically Steps (all years)

Step	Competency
1	<ul style="list-style-type: none"> ▪ I can identify risks in an experiment ▪ I can make observations and measure quantities, such as length or mass, and choose a range of simple equipment ▪ I can carry out a fair test with some help, and explain what makes it fair ▪ I can give an explanation for my observations and for the patterns in measurements I have made and recorded ▪ I am beginning to communicate in a scientific way what I have found out and suggest improvements in my work
2	<ul style="list-style-type: none"> ▪ I can use a fair test to answer a question, and select suitable equipment and information from that provided ▪ I can follow instructions, and take action to control risks to myself ▪ I can make a series of observations and measurements and vary one factor while keeping others the same ▪ I can record my observations using tables and bar charts and begin to plot points to form simple graphs ▪ I can relate my conclusions to patterns in data, including graphs, and to scientific knowledge ▪ I can communicate my conclusions using appropriate scientific language and suggest improvements in my work, giving reasons
3	<ul style="list-style-type: none"> ▪ I can decide on a suitable approach to a task, including choosing the source of information, apparatus and method ▪ I can recognise hazard symbols and make, simple suggestions to control obvious risks to myself and others ▪ I can draw line graphs to present data, interpret numerical data and make conclusions from them ▪ I can make a scientific conclusion that is consistent with the evidence I have collected ▪ I can communicate my conclusions using scientific language and mathematical terms ▪ I can evaluate my methods to make sensible suggestions for improvements to my experiments and investigations, giving detailed reasons
4	<ul style="list-style-type: none"> ▪ I can identify a sensible approach in investigatory work, by choosing and using sources of information, and scientific knowledge. The methods I have chosen collect adequate data for the task. I can measure precisely, using instruments with fine scale divisions. I understand that I should repeat my measurements ▪ I can recognise a range of familiar risks and take action to control them ▪ I choose which type table, diagram or graph and the scale needed to record my results ▪ I can analyse my results to draw conclusions that are consistent with the evidence I have collected. I can use scientific knowledge to explain them and also begin to explain any inconsistencies in my evidence. I am able to perform calculations with numerical data to make comparisons and draw conclusions ▪ I can communicate descriptive (qualitative) and numerical (quantitative) results, using scientific conventions and terminology ▪ I can evaluate my evidence, making thoughtful suggestions about how my methods could be improved

Step	Competency
5	<ul style="list-style-type: none"> ▪ I can plan appropriate approaches and procedures, by using information from a range of sources and identifying key factors in complicated situation. I can plan approaches when variables cannot easily be controlled. I select and use methods to obtain reliable data, including making repeating observations and measurements. I use a range of apparatus precisely ▪ I recognise the need for a risk assessment and use appropriate sources of information. I am able to change my methods if necessary ▪ I record data in graphs, using lines of best fit. I can identify anomalies ▪ I can analyse findings to draw conclusions that are consistent with the evidence and use scientific knowledge to explain these conclusions and identify possible limitations in primary and secondary data ▪ I can use numerical (quantitative) relationships between variables. I can perform multistep calculations such as speed. I communicate effectively, using a wide range of scientific terminology, including symbols ▪ I can consider whether the data I have collected are sufficient for the conclusions I have drawn

Modern Foreign Languages – French

Course overview

In French, we aim to develop students' linguistic abilities as well as cultural awareness through a variety of motivating teaching techniques and resources. Approximately each half term students will begin a new topic which encompasses a range of listening, reading, writing, grammar and spoken language skills.

For listening, students will regularly listen and work with native spoken recordings.

For reading, students will read and respond to a range of French texts, including adverts, stories and poems. They will be able to use a bilingual dictionary and be given opportunities to develop independent research skills using ICT.

For writing, students will develop their writing skills in the target language and will be assessed regularly through extended pieces of writing.

For speaking, students will be expected to include key grammar points and include a range of language and vocabulary.

For grammar, students will learn and be expected to include key grammatical concepts, and correctly include appropriate and new vocabulary covered in class.

Regular assessment of all five skills will take place within lessons and formal assessments will be carried out at the end of each term. We currently follow the Expo series of textbooks.

Year 7 - The topics covered include: being able to introduce yourself, learning the alphabet and numbers, days of the week, colours, family, pets, descriptions, where you live, activities you like to do, your daily routine, telling the time, your town, your school and leisure activities, sports and musical instruments. Throughout the year, pupils will also meet the following grammatical structures: the present tense of regular verbs, the present tense of avoir, être and faire (key verbs), reflexive verbs, adjectival agreements and the near future tense.

Year 8 – The topics covered include: talking about families and their jobs, where you live (countries), the weather, media, what you like to watch on television, clothes, invitations, food and restaurants, buying food in France, holidays, Francophone countries, new media.

Throughout the year, pupils will meet the following grammatical structures: the present tense of regular and irregular verbs, the use of 'il faut', giving opinions, the perfect (past) tense of regular and irregular verbs, the future tense, the comparative and superlative.

In Year 8 students build on the foundations established in Year 7, widening their vocabulary and developing grammatical structures, such as different tenses.

Year 9 - The topics covered include: your interests (TV, media and books), future plans and predictions, careers, health and fitness, famous French sporting events and sportspeople, holidays and hotels, the environment, working for an airline /airport (BA Flag Award).

Throughout the year, pupils build on prior grammatical understanding as well as meeting the following grammatical structures: the verbs avoir and être, using modal verbs, colloquialisms, imperatives, son/sa/ses, using the perfect tense to talk about others, the pronoun 'y', reflexive verbs, possessive adjectives.

The Year 9 French course provides a firm foundation for GCSE French and beyond.

Modern Foreign Languages – German

Course overview

In German, we aim to develop students' linguistic abilities as well as cultural awareness through a variety of motivating teaching techniques and resources. Approximately each half term students will begin a new topic which encompasses a range of listening, reading, writing, grammar and spoken language skills.

For listening, students will regularly listen and work with native spoken recordings.

For reading, students will read and respond to a range of German texts, including adverts, stories and poems. They will be able to use a bilingual dictionary and be given opportunities to develop independent research skills using ICT.

For writing, students will develop their writing skills in the target language and will be assessed regularly through extended pieces of writing.

For speaking, students will be expected to include key grammar points and include a range of language and vocabulary.

For grammar, students will learn and be expected to include key grammatical concepts, and correctly include appropriate and new vocabulary covered in class.

Regular assessment of all five skills will take place within lessons and formal assessments will be carried out at the end of each term. We will be following the new 'Stimmt' course.

Year 8 – Topics: being able to introduce yourself, learning the alphabet and numbers, days of the week, dates, colours, family, pets, descriptions, where you live, activities you like to do, telling the time, your school and leisure activities, your travel and holiday plans. Throughout the year, pupils will also meet the following grammatical structures: the present and future tenses; the key verbs 'haben' and 'sein'; word order in main and subordinate clauses; the indefinite, definite and possessive adjectives in the Nominative, Accusative and Dative Cases; how to ask questions; expressing opinions and preferences; using connectives effectively and accurately; selected modal verbs; adjectives after the noun.

Year 9 – Topics: talking about past holidays; media; food and drink; health and fitness; daily routine; festivals and celebrations; special events in the school year; going out.

Throughout the year, pupils will also meet the following grammatical structures: more extensive use of the present and future tenses; the perfect and imperfect past tenses; more modal verbs; the imperative; adjectives before the noun; more conjunctions.

The Year 9 German course provides a firm foundation for GCSE German and beyond.

Modern Foreign Languages – Spanish

Course overview

In Spanish we aim to develop students' linguistic abilities as well as cultural awareness through a variety of motivating and exciting teaching techniques and resources. Each half term students will begin a new topic which will encompass a range of listening, reading, writing, grammar and spoken language skills.

For listening, students will regularly listen and work with native spoken recordings. They will be immersed in the target language with their teacher during lesson time which will significantly develop their confidence and improve their ability to distinguish new sounds and pick out key information.

For reading, students will read and respond to a range of Spanish texts including stories and poems. They will be able to use a bilingual dictionary and be given opportunities to develop independent research skills using ICT. For writing, students will develop their writing skills in the target language and will be assessed regularly through extended pieces of writing.

For speaking, students will be expected to include key grammar points and include a range of language and vocabulary.

For grammar, students will learn and be expected to include key grammatical concepts, and correctly include appropriate and new vocabulary covered in class.

Regular assessment of all five skills will take place within lessons and formal assessments will be carried out at the end of each term.

Year 7

Topics: Myself; School; My Family; At Home; Free Time & My Town.

The Year 7 course is a varied curriculum introducing students to Spanish and enabling them to communicate effectively in the target language and to understand a range of authentic texts and dialogues.

Year 8

Topics: My Life; TV & Film; Holidays; Food & Drink; Fashion & Healthy Living.

In Year 8 students build on the foundations established in Year 7, widening their vocabulary and developing grammatical structures, such as different tenses.

Year 9

Topics: My Life; TV & Film; Holidays; Food & Drink; Fashion & Healthy Living.

The Year 9 Spanish course provides a firm foundation for GCSE Spanish and beyond.

Modern Foreign Languages Steps – Listening

Step	Competency
1	<ul style="list-style-type: none"> ▪ I can understand simple classroom language (e.g. hello, sit down, stand up, look, listen, write) ▪ I can understand single words and familiar sentences I hear ▪ I can understand and respond to a range of a familiar spoken words and short phrases ▪ I can recall key phonics, sounds and words and read them aloud with good pronunciation
2	<ul style="list-style-type: none"> ▪ I can readily understand and respond to classroom instructions ▪ I can understand a short passage or simple dialogue ▪ I can understand and respond to simple questions from the most recent topic area
3	<ul style="list-style-type: none"> ▪ I can obtain information from a variety of forms of spoken language ▪ I can write the words and sentences I hear in the target language from the topics I am studying ▪ I can recognise and write down words which are spelt in the target language
4	<ul style="list-style-type: none"> ▪ I can understand passages using language encountered in previous years ▪ I can understand longer passages containing some unfamiliar language ▪ I can understand passages using different tenses ▪ I can note short phrase answers in the Target Language with reasonable accuracy
5	<ul style="list-style-type: none"> ▪ I can understand longer dialogues in all KS3 topics ▪ I can guess the meaning of unknown words ▪ I can understand a range of opinions and reasons ▪ I can identify all three different tenses (past / present / future) ▪ I can take notes accurately in the target language

Modern Foreign Languages Steps – Speaking

Step	Competency
1	<ul style="list-style-type: none"> I can start and develop conversations using informal and formal address I can express and develop my ideas clearly I can speak clearly and confidently focusing on pronunciation and intonation I can ask and answer simple questions from memory I can reproduce prepared short phrases on a familiar topic with good pronunciation
2	<ul style="list-style-type: none"> I can use the target language in the classroom I can communicate in simple phrases and sentences, without support I can ask and answer simple questions My pronunciation is understandable
3	<ul style="list-style-type: none"> I can ask and answer questions using varied phrases from about three to four topics I can recognise and use formal and informal forms of address I can pronounce familiar language accurately. (Using phonics knowledge) I can give information using 2 time frames
4	<ul style="list-style-type: none"> I can express ideas independently, using learnt language I can ask questions confidently to extend conversations I can speak with some spontaneity to the teacher and my peers I can give and understand more developed responses, using creative language and more than 1 tense My pronunciation is consistently good when reading aloud, including unfamiliar language
5	<ul style="list-style-type: none"> I can ask questions confidently and spontaneously in all KS3 topics I can speak using three different tenses (minimum) I can speak in the correct register (formal/informal) I can speak confidently and accurately in all KS3 topics I can pronounce words correctly and use correct intonation with confidence

Modern Foreign Languages Steps – Reading

Step	Competency
1	<ul style="list-style-type: none"> ▪ I can read and understand a range of familiar written phrases ▪ I can provide an accurate translation into English ▪ I can find a noun (naming word, place or thing) and an adjective (describing word) in the dictionary ▪ I can use a word list to locate specific words ▪ I can use an online reference resource (dictionary or website) to check the spelling of a word
2	<ul style="list-style-type: none"> ▪ I can understand the main details of a simple text ▪ I can work out the meaning of new words from the context ▪ I can use a dictionary to check, and cross-check, meanings ▪ I understand that there may be more than one meaning for each word ▪ I understand that, in a dictionary, verbs are only found in the infinitive
3	<ul style="list-style-type: none"> ▪ I can understand texts of approximately 50 words containing language I am familiar with ▪ I can understand texts with 1-2 time frames (e.g. past/present) ▪ I can understand the gist of more challenging fiction and non-fiction texts ▪ I can use a dictionary to look up nouns, adjectives and verbs ▪ I can understand the need to change the infinitive depending on the time frame (past/present/future)
4	<ul style="list-style-type: none"> ▪ I can understand longer texts, which may contain some unpredictable elements ▪ I can work out the meaning of unfamiliar language from the context, and translate longer phrases ▪ I can select the most appropriate meaning to translate successfully ▪ I can understand a variety of fictional and non-fictional texts from authentic sources
5	<ul style="list-style-type: none"> ▪ I can read longer texts in all KS3 topics ▪ I can understand the meaning of unknown words ▪ I can use a dictionary to find the accurate word or translation ▪ I can understand a range of opinions and reasons ▪ I can understand texts in three different tenses

Modern Foreign Languages Steps – Writing

Step	Competency
1	<ul style="list-style-type: none"> ▪ I can write prose (a short paragraph) using a range of grammar and vocabulary from memory ▪ I can express my ideas and opinions ▪ I can translate individual words and short sentences in to the target language ▪ I can write simple words and several short phrases from memory with good spelling ▪ I can change one word in a sentence to change the meaning e.g. the colour, adjective or noun
2	<ul style="list-style-type: none"> ▪ I can use a model text to write my own sentences ▪ My spelling is mostly accurate ▪ I can use a dictionary to check spellings and gender ▪ I can write 1 or 2 sentences to express ideas & opinions ▪ I can translate short phrases into the target language
3	<ul style="list-style-type: none"> ▪ I can write at least one paragraph from memory using short sentences ▪ I can translate a short passage into the target language about the most recent topics ▪ I can express my own ideas and opinions with more detailed reasons
4	<ul style="list-style-type: none"> ▪ I can write several paragraphs from memory, using complex language & more than one time frame ▪ I can express my ideas and opinions using learnt and adapted language ▪ I can manipulate language structures to ask questions
5	<ul style="list-style-type: none"> ▪ I can write several paragraphs accurately from memory ▪ I can use my own language and grammatical structures in all KS3 topics ▪ I can translate a paragraph into the target language in all KS3 topics ▪ I can write creatively to express my own ideas and opinions ▪ I can write with accuracy in three different tenses

Modern Foreign Languages Steps – Grammar

Step	Competency
1	<ul style="list-style-type: none"> I can use key verbs in the present tense I can use simple connectives (e.g. and, but) I can use numbers 1-100 I can recognise 1-10 verbs in the infinitive (dictionary) form
2	<ul style="list-style-type: none"> I can form simple sentences using verbs, nouns, articles & adjectives I can use simple negatives (e.g. I don't like) I can use more connectives (e.g. however, because) and some qualifiers (e.g. very, quite) I can use possessive adjectives (my, your) I can use the present tense of 10-20 verbs I can form the near future tense (I am going to...) I can ask questions spontaneously My grammar is mostly accurate
3	<ul style="list-style-type: none"> I can use simple negatives (e.g. I don't like) I can use simple connectives (e.g. and, but, because) I can use adverbs of frequency (e.g. often, sometimes, never) I can use time phrases (e.g. today, last weekend, next week) I can use possessive adjectives (e.g. my, your, his, her) I can form the near future in all forms (e.g. I am going, you are going, he is going etc...) I can recall and use 20-30 verbs (in the infinitive and 1st person 'I' form) I am becoming more confident in using the correct word order in simple sentences
4	<ul style="list-style-type: none"> I can use nouns & adjectives accurately I can use 40-60 regular and irregular verbs, including modals (e.g. I/You must, will, should, could, can) and reflexives in a variety of tenses I can use comparative (x is bigger / smaller than y) and superlative (e.g. the biggest / smallest) forms I can use a variety of negative forms I can form the imperative (a command e.g. Eat! Listen! Drink! Work!) I can use direct object pronouns (replaces the noun in a sentence), with support
5	<ul style="list-style-type: none"> I can identify and use tenses or other structures which convey the past, present and future I can use pronouns (e.g. I, me, he/she, this one, that one, these, those – words taking the place of a noun) and demonstrative adjectives (e.g. this, that, those) confidently I can use accurate grammar, spelling and punctuation I can research and recall 60-75 verbs with a high level of accuracy I can use a wide range of conjunctions, linking sentences

Latin

Course overview

The Year 8 Latin course takes pupils through the first 12 Stages of the Cambridge Latin Course which comprise book 1. This first book introduces pupils to the complexity of Latin grammar and starts them thinking in a very methodical and structured way. Pupils will, in addition, study a range of social and cultural aspects of the Roman world, including domestic life, the theatre, slavery and the eruption of Mount Vesuvius in AD 79.

The Year 9 Latin course takes pupils through book 2 of the Cambridge Latin Course, and into the first stages of book 3. Pupils are exposed to a range of more complex grammar, building on their existing knowledge and expanding their understanding of social and cultural aspects of the Roman world. This course takes pupils to Roman Alexandria and Britain which allows pupils to appreciate the diversity of the Roman Empire and its subsequent influences. Pupils will encounter a broader range of primary sources to inform them in their discovery.

Humanities – History

Course Overview

History at Key Stage 3 looks at developing a range of key concepts, such as ‘chronological understanding’, ‘diversity’, ‘cause and consequence, and ‘significance’. There is also an emphasis on developing skills such as ‘enquiry’, ‘using evidence’, and ‘communicating about the past’. We want pupils to understand local, national and international history, and where Britain fits into the history of the wider world. These concepts and skills, and this understanding, are developed through the study of a number of phases and aspects of history. We look for pupils to develop their knowledge of history, and use of key terms and dates. We look for them to weigh up different causes or consequences, and consider significance. We look for pupils to understand how the past has been interpreted. We look for pupils to develop their ability to critically use sources. We look for them to develop their literacy skills

Key Stage 3 History looks at Britain and the wider world, and the relationship between the two.

- Within Year 7 the focus is on Medieval Britain, and on Native Americans.
- In Year 8 the emphasis is on Britain between 1485 and 1750.
- In Year 9 students investigate British history between the years 1750 and 1900 (with an investigation within this of the topic of slavery), and also study the Twentieth Century World.

Assessment is via regular checking of students’ books, as well as a number of more formally set tasks through the year. These develop a variety of skills, and investigate the topic currently being studied. In regular book-checking, and in assessments reference will be made to the School’s KS3 methods of assessment – with pupils being directed towards the best ways to make progress within the ‘Step’ they are working at. For example, Year 9 assessments focus on the Industrial Revolution, slave transport and World War One.

Visits throughout KS3 include Portchester Castle with Year 7, and Portsmouth Historic Dockyard with Year 8, both visits complementing the work done in class.

Seeking to develop independent enquirers
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History Steps

Step	Competency
1	<ul style="list-style-type: none"> I can identify features of past societies using some key dates and terms. I am starting to explain I can identify causes and consequences of some changes I can start to understand that there are different interpretations of the past I can use sources to find out about the past I am starting to write in a structured way
2	<ul style="list-style-type: none"> I can describe features of past societies using key dates and terms with some confidence. I generally explain I can make links between causes, consequences and events I can begin to explain why events or people or changes have been interpreted in different ways I can analyse sources to find out about the past I can produce consistently well-structured work
3	<ul style="list-style-type: none"> I can describe and explain in some detail. I explain well I can analyse causes, consequences and events. I can organise these in different ways (e.g. short term and long term) I can analyse the different reasons for different interpretations of the past I can evaluate sources in finding out about the past I can produce well structured, detailed work
4	<ul style="list-style-type: none"> I have detailed knowledge across my work. I use a range of sophisticated terms. I generally explain very well I can analyse causes, consequences and events. I can prioritise them I am confident in analysing different interpretations of the past I can make an independent judgement about source material I can produce well-structured, detailed, analytical work
5	<ul style="list-style-type: none"> I have very detailed knowledge across my work. I use a wide range of sophisticated key terms. I always explain very well I can put causes, consequences and events into their wider historical context I am starting to evaluate different historical interpretations of the past I can critically use sources to form a well- developed judgement I can consistently produce well-structured, detailed work that draws on a range of information

Humanities – Geography

Course Overview

Geography at Key Stage 3 enables pupils to develop their knowledge and understanding of the dynamic, diverse and ever changing planet in which we live through in the classroom and out-of-classroom experiences. Pupils will investigate both human and natural reasons for difference between places. Learning will involve opportunities to develop understanding of human interaction and impact on the environment and humans desire to live sustainably. Pupils will study their local environment and build their own sense of identity while learning to respect diversity through appreciating other people's places and cultures. While studying geography pupils will develop a wide range of skills from independent enquiry and team work to interpretation and evaluation plus decision making and problem solving. The development of key geographical skills including using different fieldwork techniques, map work, picture unpacking and graph interpretation will also be developed at key stage 3.

- In Year 7 pupils will study the local environment within the UK and some places in the wider world. Physical process such as weather and climate will be examined while human processes including settlement will be studied. Map skills will be developed and fieldwork will be undertaken in Arundel.
- In Year 8 pupils will continue and develop their study of the UK and wider world. Physical and human processes will include the study of coasts, the EU, environmental issues and economic activity. Map skills will continue to be developed through various learning activities and fieldwork will be undertaken in Gunwharf, Portsmouth.
- In Year 9 pupils will further develop their knowledge and understanding of the UK and the wider world. Physical and human processes will be investigated through the study of natural hazards, tourism, fashion and development. Map skills will continue to be developed through various learning activities and fieldwork will be undertaken in Wisley Gardens.

Assessment is via regular checking of students' books, as well as a number of more formally set tasks through the year. These develop a variety of skills, and investigate the topic currently being studied. In regular book-checking, and in assessments reference will be made to the School's KS3 methods of assessment – with pupils being directed towards the best ways to make progress within the 'Step' they are working at.

We are seeking to develop independent enquirers (and learners) as pupils enjoy investigating the world using a range of learning activities.

Geography Steps

Step	Competency
1	<ul style="list-style-type: none"> ▪ I have basic knowledge and understanding of geographical aspects of the UK and the wider world ▪ I can describe some physical and human processes and features ▪ I can describe simple geographical patterns ▪ I can use some geographical skills within my work such as maps, picture unpacking and information collected on fieldwork ▪ I can use some basic geographical vocabulary and am beginning to provide a basic structure in my work
2	<ul style="list-style-type: none"> ▪ I am able to show an increasing depth of knowledge and understanding of geographical aspects of the UK and the wider world in my work ▪ I understand and can describe some physical and human processes and features ▪ I can describe and begin to explain geographical patterns ▪ I can use geographical skills such as data collected from fieldwork, maps, picture unpacking and graphs ▪ I can use geographical vocabulary within my work and provide a basic structure
3	<ul style="list-style-type: none"> ▪ I can use my knowledge and understanding of geographical aspects of the UK and the wider world to describe and begin to analyse physical and human characteristics of places ▪ I understand and can describe and explain both physical and human processes and features ▪ I can describe and explain geographical patterns at a range of scales ▪ I select and use appropriate geographical skills including data collected from fieldwork, maps, picture unpacking and graphs ▪ I can select and use geographical vocabulary appropriately within my work and provide a clear structure
4	<ul style="list-style-type: none"> ▪ I can make links in my knowledge and understanding of geographical aspects of the UK and the wider world to describe and analyse physical and human characteristics of places ▪ I understand and am able to describe and explain physical and human processes and features ▪ I can identify and analyse geographical patterns at a range of scales ▪ I can select and use a range of geographical skills including data collected from fieldwork, maps, picture unpacking and graphs ▪ I can select and use a range of geographical vocabulary appropriately within my work and provide a clear structure
5	<ul style="list-style-type: none"> ▪ I can use knowledge and understanding of geographical aspects of the UK and the wider world to describe, explain and analyse physical and human characteristics of places ▪ I understand and am able to describe, explain and analyse connections within and between physical and human processes and features ▪ I can identify and analyse geographical patterns at a range of scales and explain the changes that result ▪ I can select and use a wide range of geographical skills including data collected from fieldwork, maps, picture unpacking and graphs ▪ I can select and use a wide range geographical vocabulary effectively and with considerable accuracy within my work and provide a very clear structure

Humanities – Religious Education

Course Overview

Religious Education at Key Stage 3 looks at developing the subject aims through three main elements; knowing and understanding religions and worldviews, expressing and communicating ideas related to religions and worldviews, and gaining and deploying the skills needed for studying religions and worldviews.

Religious education is at the heart of the school curriculum and contributes dynamically to pupils' education by provoking challenging questions about meaning and purpose in life, beliefs about God, ultimate reality, issues of rights and wrong and what it means to be human. In RE pupils learn about and from religions and worldviews in local, national and global contexts, to discover, explore and consider different answers to these questions. They learn to weigh up the value of wisdom from different sources, to develop and express their insights in response, and to agree or disagree respectfully. We look for pupils to develop their religious literacy.

All pupils are taught Religious Education according to a programme of study accepted by the Governors, with clear links to the Agreed Syllabus for the county, national Key Stage 3 guidance and Diocesan policy. The programme gives prominence to the beliefs, values and practices of the Christian faith but also explores a number of aspects of other religions and worldviews. All pupils have three periods of Religious Education each fortnight during Key Stage 3.

During Key Stage 3 in RE;

Year 7 has a focus on exploring why it is important to study RE, taking time to study three significant units exploring aspects of Christianity as well as an introduction to Sikhism.

In Year 8 the emphasis is on both depth and breadth, as we look to understand more of the roots of the Abrahamic faiths, explore an introduction to Buddhism and then reflect on spirituality through the creative arts, with time to then pause and consider some tough questions.

In Year 9 students investigate prejudice and appreciate difference with a particular focus on the Holocaust. An in depth study into Jesus' teachings and miracles then builds on pupils' previous learning. The end of the key stage sees pupils consolidating their work at KS2, getting ready for GCSE as we revisit Islam and Hinduism. Wider issues raised from relationships leaves pupils thinking deeply about their place in the modern world.

Assessment is via regular checking of students' books, as well as a number of more formally set tasks through the year. These develop a variety of skills, and investigate the unit currently being studied. In regular book-checking, and in assessments reference will be made to the School's KS3 methods of assessment – with pupils being directed towards the best ways to make progress within the 'Step' they are working at.

Visits throughout KS3 include a pilgrimage visit to the Cathedral with Year 7, participation in the RE Youth Voice conference in Year 8 and the opportunity to visit Neasden Hindu Mandir with Year 9, all visits complementing the work done in class. Year 9 pupils also have the privilege of hearing a visiting Holocaust survivor's Testimony Talk.

Seeking to develop independent enquirers
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Religious Education Steps

Step	Competency
1	<ul style="list-style-type: none"> I can identify features of religions using some concepts and terms. I am starting to explain I can outline religious ideas and practices, linking different viewpoints I can compare ideas thoughtfully in varied forms I can choose and apply ideas about religions and worldviews thoughtfully
2	<ul style="list-style-type: none"> I can describe features of religions using key concepts and terms with some confidence. I generally explain ideas I can explain the impact of and connections between ideas, practices and viewpoints in religions and worldviews I can combine diverse ideas and viewpoints clearly in various forms I can justify and explain why religions and worldviews matter
3	<ul style="list-style-type: none"> I can describe and explain in some detail using key concepts. I select relevant ideas well I can appreciate and appraise different understandings of religions and worldviews I can discuss insights into questions comparing and contrasting beliefs and ideas I can enquire into and interpret ideas, sources and arguments
4	<ul style="list-style-type: none"> I have detailed knowledge across my work. I use a range of sophisticated terms. I generally explain very well I can evaluate diverse beliefs, perspectives, sources of wisdom and ways of life I can explain ideas creatively and coherently using the main methods of religious study I can combine ideas, evaluate questions and arguments personally and critically
5	<ul style="list-style-type: none"> I have very detailed knowledge across my work. I use a wide range of sophisticated key terms. I always explain very well I can analyse arguments cogently, justifying perspectives I can synthesise research using different disciplines in RE I can use varied disciplines of religious study to interpret and research ultimate questions

Arts - Art and Design

Course overview

Through Art lessons at Bishop Luffa, students will have the opportunity to draw, paint, and work with a wide range of other media including 3D. They will respond to the work of a range of Artists, Designers and Crafts people, classic and contemporary, local and international. At the centre of all of this is the embedding of technical skills and the development of pupils as creative practitioners who are confident in taking creative risks and solving problems.

There are opportunities within each scheme of work for students to demonstrate their skills through formally assessed outcomes. Feedback is given regularly to students in verbal form and we actively encourage students to engage in self-assessment to inform their progress. Students will also be continually assessed in non-formal ways throughout the process of their work as well as in final outcomes.

The four key areas of assessment are:

AO1 Investigate - This focuses on the students' ability to analyse, understand, question and respond to a given context; this might be an artist, issue or culture and how they generate their own ideas.

AO2 Explore - This will assess a student's ability to explore a range of media, to be experimental, take creative risks and refine their work.

AO3 Record - Students will be taught how to use a series of techniques, across a range of media. They will be assessed on how skilfully they are able to control these and how they can use their recording to explore an idea. This includes drawing, photography, painting and use of all media to make marks and explore ideas. Writing about their own work and ideas is also covered by this assessment objective

AO4 Present - This will focus on the outcomes that students will produce, how well they have shown development and refinement of their idea and links to any artists or concepts they have explored.

Year 7

In Year 7 students are introduced to the four key areas of assessment through a range of topics that aim to embed the visual elements such as line, colour and form while at the same time challenging them to create original and exciting work. Throughout the year students will be exposed to a wide range of media including a range of drawing techniques, collage and sculpture. Students will explore ideas through a range of contexts.

Year 8

As students move into Year 8 we aim to consolidate their understanding of the visual elements through all four of the assessment criteria, while encouraging them to become thoughtful and perceptive practitioners. In Year 8 students are introduced to concepts within Art and begin to explore and question some of the meanings and motivations behind powerful pieces of Art. Students will continue to develop their skills in observational drawing and drawing from the imagination. Students will create a range of outcomes in both 2D and 3D.

Year 9

Year 9 students follow a series of projects which explore issues based art, exploring art's impact on the wider world. As the year progresses, they will engage in shorter workshops rather than lengthy projects. This allows for them to be introduced to a vast range of media and experimental techniques encouraging them to become far more independent and confident in their ability to create exciting, imaginative and personal work. Drawing through a variety of approaches, remains fundamental to students' learning.

Art Steps - Investigate

Step	Competency
1	<ul style="list-style-type: none"> I can form an idea with the support of others. I can comment on different ideas and methods used by artists.
2	<ul style="list-style-type: none"> I can form a range of ideas with the support of others. I can compare and comment upon different ideas and methods used by artists.
3	<ul style="list-style-type: none"> I can come up with a range of my own ideas. I can consider and discuss the ideas used by artists.
4	<ul style="list-style-type: none"> I can generate my own ideas in a number of ways, independently. I can analyse and explain the ideas and meanings of artists' work.
5	<ul style="list-style-type: none"> I can generate original, imaginative and sophisticated ideas in a number of ways I can interpret and question the ideas of artists and the meanings behind their work.

Art Steps - Explore

Step	Competency
1	<ul style="list-style-type: none"> I can carefully use simple materials, as directed by my teacher to experiment. I can attempt new ideas and approaches.
2	<ul style="list-style-type: none"> I can experiment with a range of media with purpose. I can challenge myself to take creative risks when supported by others.
3	<ul style="list-style-type: none"> I can thoughtfully refine my ideas through experimentation, and selection of appropriate media, processes and resources. I am prepared to take creative risks in my work and know that this can help me to further develop my skills and ideas.
4	<ul style="list-style-type: none"> I can independently select and manipulate media and purposefully refine techniques to suit my intentions, creating successful experiments. I am confident to take creative risks and understand how this can further the development of my ideas.
5	<ul style="list-style-type: none"> I can make extensive explorations of materials, exploiting processes to create sophisticated, meaningful experimentation. I can make discriminating decisions when selecting and experimenting with media. I can intuitively take creative risks, seeing opportunities to develop strong and highly successful experiments.

Art Steps – Record

Step	Competency
1	<ul style="list-style-type: none"> I can use drawing principles to help me with my drawing. I can remember and use some key terms when talking about my work.
2	<ul style="list-style-type: none"> I can record with a degree of accuracy. I can use simple key words to describe my own work and the work of others.
3	<ul style="list-style-type: none"> I can generally record with accuracy. I can make reference to the visual elements and I use key terms effectively to communicate my ideas and opinions.
4	<ul style="list-style-type: none"> I can record with accuracy, consistently and skilfully. I use specialist vocabulary frequently, clearly and coherently in almost all aspects of my work.
5	<ul style="list-style-type: none"> I can record instinctively, independently and in a highly developed manner. I use specialist vocabulary extensively and consistently in my writing, through my art work and in discussions.

Art Steps – Present

Step	Competency
1	<ul style="list-style-type: none"> I can make simple connections between my own work and that of an artist. I can create a final piece with the support of others that carefully uses materials.
2	<ul style="list-style-type: none"> I can use the work of artists to support me in the development of my own work. I can create a basic final piece which, with support, uses the formal elements and realises my intentions.
3	<ul style="list-style-type: none"> I can use the ideas of artists to thoughtfully inspire my own ideas. I can create a sound final piece which shows the creative risks I have explored and uses media with some skill.
4	<ul style="list-style-type: none"> I can use the work of others to create work which is clearly linked to that of the artist. I can create an outcome which is exciting and developed from my best work, using materials with skill and refinement.
5	<ul style="list-style-type: none"> I can create a response that is convincingly informed by artists, and is also personal, meaningful, and discriminating. I can create outcomes that are consistently highly developed and refined. My work is sophisticated and uses my best ideas and experiments.

Arts - Computer Science

Course overview

Computer Science is an exciting new discipline at Bishop Luffa School and we have designed a curriculum to meet the needs of 21st century pupils. We aim to develop the pupil's logical thinking and problem solving, and computational thinking skills by combining three major areas of study. First, at the heart, is computer science, which covers all the basic theory of how computers work and how we can use them. Second is information technology; this integrates the use of popular software such as Microsoft office and many others. Third, is digital literacy, which includes e-safety and the responsible use of computers and the internet?

Pupils are regularly assessed during lessons and at the end of topics to monitor progress. Pupils are also expected to monitor their own progress and set themselves personal targets to help their learning. Each pupil has a school target 'step', which they are working towards.

There are 6 key areas of assessment in computer science.

1. Algorithms – developing solutions to problems.
2. Programming & Development – building software.
3. Data & Data Representation – how data is used.
4. Hardware & Processing – computers and how they work.
5. Communication & Networks – the internet.
6. Information Technology – use of software for different tasks.

Year 7

All pupils joining in Bishop Luffa in Y7 are introduced to e-safety and the responsible use of the internet. Pupils then go on to begin to understand how to solve simple problems using programming.

Topic 1 – E-safety and the responsible use of the Internet.

Topic 2 – Basic Programming using PowerPoint – Who wants to be a millionaire

Topic 3 – Simple text based programming – Logotron

Topic 4 – TV Advert creation– develops a range of skills

Topic 5 - Scratch – Visual Programming with code blocks.

Year 8

Pupils develop their skills further this year in many of the 6 areas of assessment as we dig deeper into the theory and programming elements of computer science. KODU Xbox style game creation is a popular topic – with a competition, run by Microsoft that pupils can enter. This year, 2015, we have one team in the final, which cumulates in a visit to the Microsoft campus.

Topic 1 – E-Safety – Digital literacy

Topic 2 – Sequential Programming with Flowol – developing control systems for real life situations

Topic 3 – Flash - How to animate using this popular tool.

Topic 4 – Jump on the bandwagon – website creation using Dreamweaver.

Topic 5 – KODU. Xbox style game creation, Visual programming

Topic 6 – Introduction to Python – Text based programming.

Year 9

This is the final year of KS3 before individual options for GCSE are taken up in Year 10. During this year we aim to strengthen and reinforce pupils' skills and knowledge as they move on to GCSE.

Computer Science Steps – Algorithms

Step	Competency
1	<ul style="list-style-type: none"> I can design solutions (algorithms) that use repetition and two way selection (if/else) I can use diagrams to express solutions I can use logical reasoning to predict outputs, showing an awareness of the inputs
2	<ul style="list-style-type: none"> I can show an awareness of tasks best completed by humans or computers I can design solutions by decomposing a problem and create a sub-solution for each of these parts (decomposition) I know that different solutions exist for the same problem
3	<ul style="list-style-type: none"> I know that iteration is the repetition of a process such as a loop I know that different algorithms exist for the same problem I can represent solutions using a structured notation I can identify similarities and differences in situations and can use these to solve problems (pattern recognition)
4	<ul style="list-style-type: none"> I know a recursive solution to a problem repeatedly applies the same solution to smaller instances of the problem I know that for some problems I can share the same characteristics and use the same algorithm to solve both (generalisation) I know the notion of performance for algorithms and I know that some algorithms have different performance characteristics for the same task
5	<ul style="list-style-type: none"> I know that the design of an algorithm is distinct from its expression in a programming language (which will depend on the programming constructs available) I can evaluate the effectiveness of algorithms and models for similar problems I know where information can be filtered out in generalizing problem solutions (abstraction) I can use logical reasoning to explain how an algorithm works I can represent algorithms using a structured language

Computer Science Steps – Programming & Development

Step	Competency
1	<ul style="list-style-type: none"> I can create programs that implement algorithms to achieve given goals I can declare and assign variables I can use post tested loops – e.g. until, if and else
2	<ul style="list-style-type: none"> I know the difference between, and appropriately I can use if and if, then and else statements I can use variable and relational operators within a loop to govern termination I can design, write and debug modular programs using procedures I know that a procedure can be used to hide the detail with sub-solution (procedural abstraction)
3	<ul style="list-style-type: none"> I know that programming bridges the gap between algorithmic solutions and computers I have practical experience of a high-level textual language, including using standard libraries when programming I can use a range of operators and expressions e.g. Boolean, and applies them in the context of program control I can select the appropriate data types

4	<ul style="list-style-type: none"> ▪ I can use nested selection statements ▪ I know the need for, and can write, custom functions including use of parameters ▪ I can use technologies and online services securely, and I know how to identify and report inappropriate conduct ▪ I know and I can use negation with operators ▪ I can use and manipulate one dimensional data structures ▪ I can find and corrects syntactical errors
5	<ul style="list-style-type: none"> ▪ I know the effect of the scope of a variable e.g. a local variable can't be accessed from outside its function ▪ I know and apply parameter passing ▪ I know the difference between, and I can use, both pre-tested e.g. 'while', and post-tested e.g. 'until' loops ▪ I can apply a modular approach to error detection and correction

Computer Science Steps – Data & Data Presentation

Step	Competency
1	<ul style="list-style-type: none"> ▪ I know the difference between data and information ▪ I know why sorting data in a flat file can improve searching for information ▪ I can use filters or can perform single criteria searches for information
2	<ul style="list-style-type: none"> ▪ I can perform more complex searches for information e.g. using Boolean and relational operators ▪ I can analyse and evaluate data and information, and I know that poor quality data leads to unreliable results, and inaccurate conclusions
3	<ul style="list-style-type: none"> ▪ I know that digital computers use binary to represent all data ▪ I know how bit patterns represent numbers and images ▪ I know that computers transfer data in binary ▪ I know the relationship between binary and file size (uncompressed) ▪ I can define data types: real numbers and Boolean ▪ I can query data on one table using a typical query language
4	<ul style="list-style-type: none"> ▪ I know how numbers, images, sounds and character sets use the same bit patterns ▪ I can perform simple operations using bit patterns e.g. binary addition ▪ I know the relationship between resolution and colour depth, including the effect on file size ▪ I can distinguish between data used in a simple program (a variable) and the storage structure for that data
5	<ul style="list-style-type: none"> ▪ I know the relationship between data representation and data quality ▪ I know the relationship between binary and electrical circuits, including Boolean logic ▪ I know how and why values are data typed in many different languages when manipulated within programs

Computer Science Steps – Hardware & Processing

Step	Competency
1	<ul style="list-style-type: none"> I know that computer collect data from input devices – sensors, application software I know the difference between computer hardware and software and what they do
2	<ul style="list-style-type: none"> I know why and when computers are used I know the main functions of the operating system I know the difference between physical, wireless and mobile networks
3	<ul style="list-style-type: none"> I know the function of the main internal parts of basic computer architecture I know the concepts behind the fetch-execute cycle I know that there is a range of operating systems and application software for the same hardware
4	<ul style="list-style-type: none"> I know the von Neumann architecture in relation to the fetch-execute cycle, including how data is stored in memory I know the basic function and operation of location addressable memory
5	<ul style="list-style-type: none"> I know that processors have instruction sets and that these relate to low-level instructions carried out by a computer

Computer Science Steps – Communication and Networks

Step	Competency
1	<ul style="list-style-type: none"> I know the difference between the internet and the internet service – e.g. protocol I can show awareness of and use a range of internet services e.g. Skype - VOIP I know what is acceptable and unacceptable behaviour when using technology and when online
2	<ul style="list-style-type: none"> I know how to effectively use search engines, and I know how search results are selected I am able to select, combine and use internet services I can show responsible use of technologies and online services, and I know a range of ways to report concerns
3	<ul style="list-style-type: none"> I know how search engines rank search results I know how to construct static web pages using HTML and CSS I know data transmission between digital computers over networks, including the internet i.e. IP addresses and packet switching
4	<ul style="list-style-type: none"> I know names of hardware e.g. hubs, routers, switches, and the names of protocols e.g. SMTP, iMAP, POP, FTP, TCP/IP, associated with networking systems
5	<ul style="list-style-type: none"> I know the purpose of the hardware and protocols associated with networking computer systems I know the client-server model including how dynamic web pages use server-side scripting and that web servers process and store data entered by users I know that persistence of data on the internet requires careful protection of online identity and privacy

Computer Science Steps – Information Technology

Step	Competency
1	<ul style="list-style-type: none"> I can collect, organise and present data and information as digital content I can create digital content to achieve a goal and communicate with a wider audience e.g. Blogging I can make appropriate improvements to solutions based on feedback received and comment on the success of the solution
2	<ul style="list-style-type: none"> I can make judgements about digital content when evaluating and repurposing it for a given audience I know the audience when I am designing and creating digital content I know the potential of information technology for collaboration when computers are networked I can use criteria to evaluate the quality of solutions and can identify improvements making some refinements to the solution, and future solutions
3	<ul style="list-style-type: none"> I can evaluate the appropriateness of digital devices, internet services and application software to achieve given goals I can recognise ethical issues surrounding the application of information technology beyond school I can design criteria to critically evaluate the quality of solutions; I can use the criteria to identify improvements and can make appropriate refinements to the solution
4	<ul style="list-style-type: none"> I can justify the choice of and independently combine and I use multiple digital devices, internet services and application software to achieve given goals I can evaluate the trustworthiness of digital content and consider the usability of visual design features when designing and creating digital artefacts for known audience I can design criteria for users to evaluate the quality of solutions, and can use the feedback from users to identify improvements and can make appropriate refinements to the solution. I can identify and explain how the use of technology can impact on society
5	<ul style="list-style-type: none"> I can undertake creative projects that collect, analyse, and evaluate data to meet the needs of a known user group I can effectively design and create digital artefacts for a wider or remote audience I consider the properties of media when importing them into digital artefacts I can document user feedback, the improvements identified and the refinements made to the solution I can explain and justify how the use of technology impacts on society, from the perspective of social, economic, political legal, ethical and moral issues

Arts – Drama

Course overview

Through Drama lessons at Bishop Luffa pupils will have the opportunity to explore, collaborate, create and perform. They will be introduced to a range of performance styles and create work that explores a variety of themes and texts. At the heart of this work is the development of core skills such as team-work, problem solving, creative thinking, analysis and evaluation, presentation skills and emotional intelligence.

Pupils will be regularly assessed on the quality of their performance work and their awareness of how to effectively create an impact on the audience. Alongside this they will be assessed on their ability to work successfully within a group rehearsal process and reflect and evaluate their work (both written and verbal).

The three key areas of assessment are:

Creating – This focuses on the pupils' ability to effectively communicate and contribute creatively to the rehearsal process. It also assesses students understanding of how to respond to a range of stimuli and work with different performance styles.

Performing – This will assess pupils' ability to engage an audience through their movement and vocal skills.

Responding – Pupils will be required to develop their use of drama language to effectively analyse and evaluate performance work through both verbal feedback and written evaluations.

Year 7

In year 7 pupils are introduced to the three key areas of assessment through a range of topics that aim to support the development of their performance skills whilst challenge them to create original and exciting work. Throughout the year they will have the opportunity to work with established play scripts and understand the process of devising their own drama work.

Year 8

As pupils move in to year 8 the topics covered aim to consolidate the skills developed in year 7 but begin to challenge their creativity and originality, enabling them to create more diverse work. Pupils in year 8 will have the opportunity to create work in the following areas; Physical Theatre, Devised Performance, Scripted Performance and Improvisation.

Year 9

Year 9 takes the four key areas covered in year 8 and focuses them towards a GCSE level of working. The emphasis will be on independent learning and encouraging pupils to take ownership of the performances they create. The texts and themes explored at this level will require a high degree of emotional maturity and sensitivity and pupils will be supported to develop these skills throughout the year.

Drama Steps – Creating

Form, Structure, Style (FSS)

Group skills (G)

Step	Competency
1	<ul style="list-style-type: none"> FSS = I can create a performance that presents a theme or text G = I can listen and respond to others ideas
2	<ul style="list-style-type: none"> FSS = I can create a performance that effectively explores a theme or text G = I can contribute ideas in rehearsal
3	<ul style="list-style-type: none"> FSS = I can create a performance that effectively interprets a theme or text G = I can collaborate to build ideas
4	<ul style="list-style-type: none"> FSS = I can create a performance that has a clear audience impact G = I can shape ideas creatively
5	<ul style="list-style-type: none"> FSS = I can create an engaging performance that responds to a challenging theme or text G = I can take the lead in rehearsals, shaping original and creative ideas

Drama Steps – Performing

Voice (V), Movement (M), Character (C)

Step	Competency
1	<ul style="list-style-type: none"> V = I can project my voice M = I can move about the stage space with ease C = I can present a basic role within the performance
2	<ul style="list-style-type: none"> V = I can use different tones of voice M = I can use different gestures and body language C = I can sustain my role throughout the performance
3	<ul style="list-style-type: none"> V = I can use a variety of pitch, pace and pause M = I can use my body language and facial expressions to show emotion C = I can create a role showing different emotions
4	<ul style="list-style-type: none"> V = I can control my vocal skills to create an intended effect M = I can control my physical skills to create an intended effect C = I can communicate a fully developed role
5	<ul style="list-style-type: none"> V = I can employ a range of vocal skills to create an impact on the audience M = I can employ a range of physical skills to create an impact on the audience C = I can interpret a character with subtlety and flair

Drama Steps – Responding

Written or verbal responses

Step	Competency
1	<ul style="list-style-type: none">I can identify key drama skills and their purpose
2	<ul style="list-style-type: none">I can give examples of how drama skills are used effectively
3	<ul style="list-style-type: none">I can use specific drama language with confidence and accuracy
4	<ul style="list-style-type: none">I can analyse the impact of a performance
5	<ul style="list-style-type: none">I can give detailed analysis and evaluation showing a strong understanding of audience impact

Arts - Music

Course overview

Through Music lessons at Bishop Luffa, pupils will have the opportunity to perform, compose, listen and appraise music. They will be introduced to a wide repertoire of musical genres and create pieces that explore a range of musical styles. At the heart of this work is the development of core skills such as team-work, problem solving, creative thinking, analysis and evaluation, presentation skills and emotional intelligence.

Students will be regularly assessed on the quality of their performing and composing work and their awareness of musical genres, styles and epochs; i.e. musical times and periods. Alongside this, they will be assessed on their ability to work successfully as individuals, or within a group and reflect and evaluate their work; both written and verbal.

The **THREE** key areas of assessment are:

Performing – This focuses on the pupils’ ability to perform music as an instrumentalist, and / or as a singer. It also assesses students understanding of how to respond to a range of stimuli and music with inherent characteristics and performance styles.

Composing – This will focus on the pupils’ ability to create and develop musical compositions based on given criteria, or stimuli and to notate them appropriately for subsequent realization and reflection.

Listening and Appraising – Pupils will be required to develop their use and understanding of the rudiments of music and musical vocabulary, to effectively describe and appraise music from a given repertoire or contemporary performances of their own performing or composing work; through both verbal feedback and written evaluations.

Year 7

In year 7 pupils are introduced to the three key areas of assessment through a range of topics that aim to support the development of their performing, composing & listening skills, and challenge them to create original and exciting work. Throughout the year, they will develop use and understanding of rhythm, pitch, tempo, dynamics, timbre, texture & structure and they will have the opportunity to focus on key works to enhance their understanding of the development of instruments and notation.

Year 8

In year 8 pupils continue to focus on topics which further develop the three key areas of assessment, to consolidate the skills developed in year 7 but begin to challenge their creativity and originality, enabling them to create more diverse work. Throughout the year, they will develop use and understanding of rhythm, pitch, tempo, dynamics, timbre, texture & structure and they will have the opportunity to focus on key works to enhance their understanding of the development of instruments and notation.

Year 9

Year 9 takes the four key areas covered in year 8 and focuses them towards a GCSE level of working. The emphasis will be on independent learning and encouraging pupils to take ownership of the performances and compositions they create. The further repertoire of Listening will focus on contemporary popular and commercial music and the development of the British music industry.

Music Steps – Performing

Step	Competency
1	<ul style="list-style-type: none"> I can perform a pulse and keep in time I can perform a simple rhythm using basic note values – Crotchets & Quavers I can perform simple melodies which move by step I can identify and play Basic chords – Chords I, IV & V (e.g. C, F & G)
2	<ul style="list-style-type: none"> I can perform a pulse within Simple Time Signatures – 2/4, 3/4 & 4/4 I can perform rhythms using Crotchets, Quavers & Semiquavers I can perform melodies which move by step and include some leaps I can use Basic chords as part of a performance – Chords I, IV & V (e.g. C, F & G)
3	<ul style="list-style-type: none"> I can perform in time with a Pulse at a steady Tempo I can perform rhythms using Crotchets, Quavers, Semiquavers & Minims I can perform melodies which include some wider leaps I can use Major & Minor chords as part of a performance – Chords I, ii, IV, V & vi (e.g. C, Dm, F, G, Am)
4	<ul style="list-style-type: none"> I can keep in time with other performers as part of a group performance I can perform from written music with reasonable accuracy I can play more complex chords when performing such as '7' chords
5	<ul style="list-style-type: none"> I take a leading role when performing with others, producing a coherent, musical performance I can perform from given notation or appropriate musical stimuli including more complex aspects such as dotted rhythms I can perform melodies which include some Chromatic notes

Music Steps – Performing Indicators

Step	Competency
1	<ul style="list-style-type: none"> I can read and perform some very simple music using One Finger I can read and perform a small range of music from simple chord symbols / tab / traditional notation e.g. 2 chords I can perform music within an 5th in range, with a simple rhythm and no leaps– with a reasonable technique and a mainly accurate intonation
2	<ul style="list-style-type: none"> I can read and perform some simple music using One Hand I can read and perform a small range of music from simple chord symbols / tab / traditional notation (e.g. 4 chords) I can perform music within an 5th in range with more complicated rhythms and a leap - without an accompaniment – with a reasonable technique and a mainly accurate intonation
3	<ul style="list-style-type: none"> I can read and perform music One Hand and I can perform music with attention to dynamics to improve my performance I can read and perform a small range of music from simple chord symbols / tab / traditional notation (e.g. 6 chords) I can perform music within an octave in range, without an accompaniment – with a reasonable technique and a mainly accurate intonation

4	<ul style="list-style-type: none"> I can read and perform music using Two Hands and I can perform music with attention to dynamics to improve my performance I can read and perform a range of music from a range chord symbols / tab / traditional notation (e.g. 6 to 12 chords) I can perform music within an octave in range, with / without an accompaniment – with good technique and a broadly accurate intonation
5	<ul style="list-style-type: none"> I can read and perform music using two hands, black notes and the sustain pedal and I can improvise fairly complex melodies that work well with any accompaniment I can read and perform music from an extended range chord symbols / tab / traditional notation (e.g. more than 12 chords) and I can improvise fairly complex accompaniments that work well within the given genre or style I can perform music of more than an octave in range and independent of the accompaniment – in terms of rhythm, intonation & technique

Music Steps – Composing

Step	Competency
1	<ul style="list-style-type: none"> I can compose a simple 4 Bar Rhythm using Crotchets & Quavers I can compose a simple 4 Bar Melody using notes from a Pentatonic Scale (e.g. C D F G A)
2	<ul style="list-style-type: none"> I can compose a simple 4 Bar Rhythm using Crotchets, Quavers & Semiquavers I can compose a simple 4 Bar Melody using notes from a Major Scale (e.g. C D E F G A B C) I can compose a simple 4 Bar Chord Structure using Primary Chords (e.g. C F & G)
3	<ul style="list-style-type: none"> I can compose Rhythms using Minims, Crotchets, Quavers & Semiquavers & their Rests I can compose Melodies using notes from the Brass Harmonic Series (e.g. C G C E G Bb C) I can compose music which incorporates multiple layers (e.g. Ostinato & Bass Line) I can consider the structure of my piece (e.g. Binary (AB), Intros & Endings) I can compose Chord sequences using Primary Chords and Secondary Chords (e.g. C F G, Dm, Am)
4	<ul style="list-style-type: none"> I can compose pieces which make use of appropriate resources (e.g. Timbres & Voices) and Musical Devices (e.g. Pedal Notes, Ostinato, Riffs) I can compose Rhythms using Syncopation (e.g. dotted rhythms) and compound time signatures (e.g. 6/8, 9/8, 12/8) I can compose Melodies which incorporate notes from given Scales or Tonalities (e.g. Major / Minor / Pentatonic) and work well with an accompaniment I can compose Melodies in Ternary (ABA) or Simple Rondo (ABACA) Chord Structures using Primary Chords and Secondary Chords (e.g. C F G, Dm, Am, Em)
5	<ul style="list-style-type: none"> I can compose pieces which meet a set brief, use appropriate resources (e.g. using appropriate Instruments and / or Voices) and exploit mediums (e.g. Harmony, Tempo, Texture, Dynamics & Articulation) I can compose Melodies which incorporate notes from given scales or tonalities (e.g. Major / Minor / Pentatonic / Whole Tone / Blues & Chromatic) and / or use more complex rhythms I can compose music using an extended range of Chords (e.g. Root Position, Inversions, Pedals & 7ths) I can compose in an extended musical structure - e.g. Rondo (ABACADA), Pop Song Structure (incorporating - Intro, Verse, Chorus, Middle 8 & Outro)

Music Steps – Listening & Appraising

Step	Competency
1	<ul style="list-style-type: none"> I can identify and discriminate between music performed with different Tempo I can identify and discriminate between music performed with different Dynamics (e.g. forte and piano) I can identify and discriminate between music performed in a Pentatonic Scale I can identify and discriminate between music performed by different Families of Orchestral Instruments (e.g. Strings, Woodwind, Brass & Percussion)
2	<ul style="list-style-type: none"> I can identify and discriminate between music performed with different Simple Time Signatures (e.g. 2/4, 3/4, 4/4) I can identify and discriminate between music performed with different Dynamics – e.g. f, mf, mp & p I can identify and discriminate between music performed in a Major & Minor Tonality I can identify and discriminate between music performed by different Orchestral Instruments
3	<ul style="list-style-type: none"> I can identify and discriminate between music performed with different Compound Time Signatures (e.g. 6/8, 9/8, 12/8) I can identify and discriminate between music performed with different Articulation (e.g. Legato & Staccato) I can identify and discriminate between music performed with different Dynamics (e.g. range ff to pp) I can identify and discriminate between music performed in a Major, Minor & Modal Tonality I can identify and discriminate between music performed by different Vocal Ranges (e.g. Soprano, Alto, Tenor & Bass)
4	<ul style="list-style-type: none"> I can identify and discriminate between music performed in irregular Time Signatures (e.g. 5/4) I can identify and discriminate between music performed with different Textures (e.g. Monophonic, Polyphonic & Homophonic) I can identify and discriminate between music performed in a Blues or Whole Tone Tonality I can identify and discriminate between music performed by different Styles (e.g. Classical, Jazz, Blues, Pop, Rock & Folk music) I can identify and discriminate between music performed by different Celtic & Folk Instruments (e.g. Banjo, Ukelele, Accordion, Harp, Mandolin, Bohdran, Fiddle, Pipes & Harmonica)
5	<ul style="list-style-type: none"> I can identify and discriminate between music performed with different Textures (e.g. Monophonic, Polyphonic & Homophonic, Heterophonic & Antiphonic) I can identify and discriminate between music performed in Tonal & Atonal music I can identify and discriminate between music performed by different Cultures (e.g. Indian, African, Caribbean & Oriental) I can identify and discriminate between music performed by different Modern Instruments & Music Technology (e.g. Electric Guitars, Synthesizers, Drum Machines, Vocoders & Samplers)

Design & Technology – Product Design and Textiles

Course overview

The KS3 course in Design & Technology is intended to prepare Bishop Luffa students to cope in a rapidly changing technological world and enable them to think and intervene creatively to improve that world. We aim to equip students with knowledge, skills and understanding about design, materials, tools and processes (technical know-how).

In order to help our students demonstrate their improving skills and develop into independent, confident and creative problem-solvers we undertake a variety of design and make activities within the areas of food, textiles and product design.

Systems and control, CAD (Computer Aided Design), CAM (Computer Aided Manufacture), ICT and the work of other designers feature strongly in lessons.

The Key Stage 3 course aims to

- Develop students' capability through enjoyable activities, which involve a range of contexts, materials and processes and lead to practical results of a high quality.
- Develop students' confidence to design, make, modify and improve artefacts, structures and systems for specific purposes.
- Develop students' ability to think creatively.
- Develop students understanding of how people make useful products that are easy to use.
- Encourage students to work effectively and safely.
- Encourage students to consider the social effects and impact of technology in the wider world.
- Provide students with the opportunities to draw on knowledge gained in other subject areas, especially mathematics and science.
- Provide opportunities for students to work both individually and as members of a team.
- Develop spatial awareness and visualisation skills.
- Provide opportunities for students to select and manage appropriate resources.

Key Stage 3 Design & Technology

A programme has been designed so that all pupils follow a common foundation course. Design and Technology is compulsory at KS3 and pupils can later opt to take the subject at GCSE and A-Level. The KS3 framework is based on the National Curriculum and certain GCSE criteria. The emphasis is to provide all pupils with a course which offers a rich experience and develops capability in all areas of study. The main elements of the course are related to Designing and Manufacturing Products.

Year 7

During the year, students rotate through six modules and have four, fifty-minute periods per fortnight.

- **Product Design**

Unit 1: Investigating Electronics - Flashing Cycle Light

Unit 2: Investigating Structures - Tree house design

- **Textiles**

Unit 1: Juggling pyramids.

In this project you will be producing 3 jugglers based on a geometric theme. You will be introduced to the sewing machine and learn all the health and safety implication associated. You will design and make your own block for block printing fabric that will be used in the making process. This project is a great introduction into the subject and enables you to gain basic skills and confidence.

Unit 2: Ugly Dolls.

In this project the main focus is on creativity and becoming more of an independent worker. You will be designing a new Plush toy based on aspects of yourself or a famous character, which will become part of the "Ugly Doll" franchise. The project will stretch and develop skills learnt from the previous project and extend your knowledge on shaping, stuffing and decorating a textiles product. Resources for this project use existing fabrics and components where possible.

Year 8

During the year, students rotate through six modules (two in each subject area) and have four fifty-minute periods per fortnight

- **Product Design**

Unit 1: Investigating Product - Passive Amplifier design

Unit 2: Investigating Manufacturing processes - Batch manufactured stool frame.

- **Textiles**

Unit 1: Cultural cushion.

In this project you will be researching different icons, patterns and colours associated with a specific culture of your choice. You will develop your findings into creative designs suitable for interior cushions. By sampling and testing a variety of new decorative techniques you will then create your product using a wide selection of interesting fabrics. This is a very creative project that will not only challenge and excite but also extend your knowledge of Arts and crafts in a global context.

Unit two: Artist stool.

This project is a collaborative one merging two disciplines of D&T, Textiles and Product Design. In your Product Design lesson you will be making the wooden frame for the stool and in Textiles you will design and make the stool seat cover using sustainable materials. The seat cover will be based on an Artist of your choice and contain a selection of suitable pockets to store equipment such as Art, hobby, reading etc. This project will not only allow you to discover and learn about Artistic Masters (past and present), but will allow you to manipulate fabrics and components in order to represent that artist in a practical usable product.

In Year 9 pupils experience two subject areas that they have selected at the end of Year 8. They have two fifty-minute periods per fortnight in each subject for the whole year. Pupils are taught by subject specialist in each subject area.

Year 9

▪ Product Design

Knowledge and Understanding:

- Designing: (including research and analysis, ideas, sketching, model making, teamwork, presentation and use of ICT).
- Making: (including use of tools and machinery, electronic processes, material construction techniques, technical drawing, planning).
- Theoretical Knowledge: (including, systems control / electronics, material technologies, industrial practices).

▪ Textiles

Unit 1: Funky hat.

This is an exciting seasonal project enabling you to use sophisticated sustainable technical fabrics such as Polar fleece in a fun and unique way. In this project you will explore successful existing products and be inspired to design and develop your own funky winter hat. You will learn how to adapt a paper pattern and develop your shaping and styling skills in order to create something truly unique, all based on a theme of your choice.

Unit 2: Customising a T-shirt.

This is the final project in KS3 and one that can give real creative freedom and a glimpse into what it takes to be successful at GCSE Textiles. You will provide yourself with a plain white T-shirt and with research on themes, products and new practical samples, will completely redesign and make a new product from the original T shirt. Whether you chose to use tie and dye, slashing, CAD CAM or any number of the newly learnt skills in this project, you could end up with an extremely different T-shirt, skirt, play suit, tie, waste coat, shorts or soft sculpture that will be worn or displayed and possibly win first prize in a small fashion show.

D&T Product Design Steps – Explore

Step	Competency
1	<ul style="list-style-type: none"> ▪ I can identify the important features which will be needed by my design ▪ I can identify the constraints (the things that limit what can be made) <ul style="list-style-type: none"> ○ e.g. the material it will be made from might only be available in a certain size or the product might need to be a small size to fit into something ▪ I can state at least 6 needs in my specification
2	<ul style="list-style-type: none"> ▪ I can explain why a few of the identified features are important ▪ I can carry out research into a few of the features needed by the design ▪ I can describe the features of at least two similar products <ul style="list-style-type: none"> ○ e.g. how they work, their form, what they look like ▪ I can use my research to identify some of the design criteria ▪ I can state at least 8 needs in my specification
3	<ul style="list-style-type: none"> ▪ I can explain why some of the identified design features are important ▪ I can carry out research into some of the features needed by the design ▪ I can use product analysis to investigate some features of at least two similar products <ul style="list-style-type: none"> ○ e.g. investigated how they function or work, or the reasons for their form or appearance ▪ I can make a few comments about what the results of my research might mean for my design ▪ I can state at least 10 needs in my specification, some of which are measurable ▪ I can show how most of the design criteria link to my research
4	<ul style="list-style-type: none"> ▪ I can explain why most of the identified design features are important ▪ I can carry out research into more than half of the features needed by the design ▪ I can use product analysis to investigate most of the relevant features of at least two related products, including how they were made and what they are made from ▪ I can show how every one of the design criteria links to my research and analysis ▪ I can explain how my design will be influenced by the results of some of my research
5	<ul style="list-style-type: none"> ▪ I can identify the target market for the product ▪ I can explain why all of the identified design features are important ▪ I can carry out research into most of the features needed by the design ▪ I can carry out detailed product analysis of related products, explaining the reasons for all of their design features ▪ I can explain how every one of the design criteria links to my research and analysis ▪ I can explain in detail how the results of my research will influence my design

D&T Product Design Steps – Design

Step	Competency
1	<ul style="list-style-type: none"> ▪ I can generate at least three different design ideas that include 5 labels on each design idea, pointing out the important features ▪ I can develop my initial design ideas to create my final design ▪ I can produce a written explanation, presentation drawing or model of my final design ▪ I can choose the materials, components or ingredients to be used in my product ▪ I can prepare some instructions, in the right order, for making my product ▪ I can list the tools and equipment needed to make my product

2	<ul style="list-style-type: none"> ▪ I can make a comment about how my design ideas have been influenced by environmental or sustainability considerations ▪ I can comment about how well my design ideas will meet the needs of the users ▪ I can comment about how well my designs satisfy a few of the design criteria ▪ I can use modelling to test at least one feature of the proposed design ▪ I can chose at least one of the materials, components or ingredients that you plan to use based on some of its properties ▪ I can describe some of the main stages needed to make my product ▪ I can identify the tools and equipment that could be used to make my product
3	<ul style="list-style-type: none"> ▪ I can make comments about how my design has been influenced by either a social, moral, environmental or sustainability issue ▪ I can comment about how well my designs satisfy most of the design criteria ▪ I can identify a number of different techniques and modelling methods that could be used in my development work ▪ I can use modelling to test a few features of the proposed design against the design criteria ▪ I can generate a final design proposal that satisfies a few of the design criteria ▪ I can use knowledge of their working properties to choose a few of the materials, components or ingredients that you plan to use ▪ I can generate a step-by-step list of the stages needed to make the product, included safety notes ▪ I can identify which activities during making could affect how well my final product will meet the general requirements of the design
4	<ul style="list-style-type: none"> ▪ I can explain how my design ideas address at least 5 different types of need (e.g. aesthetic, cost, user, environmental, safety, size, functional, manufacturing.) ▪ I can describe how my design ideas have been influenced by either a social, moral, environmental or sustainability consideration ▪ I can evaluate my design ideas against the design criteria ▪ I can use more than one type of modelling (including CAD where appropriate) to develop and evaluate my design ▪ I can describe how my design ideas have changed during the development of my final design proposal ▪ I can generate a final design proposal that satisfies some of my design criteria ▪ I can use knowledge of their working properties to choose some of the materials, components or ingredients that you plan to use ▪ I can in the instructions for making, include alternative tools and processes that could be used including reference to some quality control checks
5	<ul style="list-style-type: none"> ▪ I can show how my design has been influenced by more than one social, moral, environmental or sustainability consideration ▪ I can objectively evaluate my design ideas against some of the design criteria ▪ I can consider the needs of the user when evaluating my design ideas ▪ I can use modelling or computer simulation to test several features of the design proposal against the design criteria ▪ I can explain how my design ideas have been developed and improved to create the final design proposal ▪ I can generate a design proposal that satisfies many of my design criteria ▪ I can use knowledge of their working properties to choose most of the materials, components or ingredients that you plan to use ▪ I can include some quality control checks in the instructions for making ▪ I can identify most of the individual activities during making that could affect how well my final product will meet each of the design criteria

D&T Product Design Steps – Make

Step	Competency
1	<ul style="list-style-type: none"> I can make a finished product I can carry out all practical work safely I can work independently, without help I can use a few tools or processes correctly (including CAM if appropriate), demonstrating some basic skills in their use I can test whether my final product can do what it is needed to do I can explain any differences between the design you were making and my final product
2	<ul style="list-style-type: none"> I can make a product that had (at least) a low level of challenge, with some parts having a medium level of challenge I can show that you are aware of safe working practices for all of the processes used to make my product I can use a variety of tools or processes correctly (including CAM if appropriate), demonstrating adequate skill to meet the needs of the product I can make a final product that is correctly assembled and to a satisfactory standard I can evaluate the final product, identifying its good and bad features e.g. aesthetics, cost, size, safety, how it works or functions, etc. I can suggest at least two improvements that could be made to the product
3	<ul style="list-style-type: none"> I can make a product that had (at least) a medium level of challenge I can use a wide variety of different tools or processes correctly (including CAM if appropriate), demonstrating fair skills in their use I can make a final product that is generally well assembled and with a good finish I can test at least one feature of the final product against the design criteria or the product manufacturing specification I can explain how you tested the product and why you tested it this way I can comment about how suitable the final product is for the target user
4	<ul style="list-style-type: none"> I can make a product that had (at least) a medium level of challenge, with some parts having a high level of challenge I can select and used a wide variety of different tools or processes correctly (including CAM if appropriate), demonstrating good skills in their use I can carry out quality control checks for some features during the making of my product I can make a final product that is well assembled and to a good overall standard I can test a few features of the final product against the design criteria or the product manufacturing specification I can suggest at least three improvements to the final product and explained why these are needed
5	<ul style="list-style-type: none"> I can make a product that had (at least) a medium to high level of challenge I can select and used a wide variety of different tools or processes correctly (including CAM if appropriate), demonstrating good or very good skills in their use I can carry out quality control checks for most of the main features during the making of my product I can make a final product that is well assembled and finished I can test some features of the final product against the design criteria or the product manufacturing specification I can modify my product after testing to improve how it works or functions I can select and justified a suitable method to evaluate my product, based upon its use I can show that the outcome would be suitable for the target user

D&T Textiles Steps – Explore

Step	Competency
1	<ul style="list-style-type: none"> I can identify the important features that will be needed in my design I can identify the constraints (the things that limit what can be made) I can carry out research and give (verbalise) results
2	<ul style="list-style-type: none"> I can explain why a few of the identified features are important I can carry out research into a few of the features needed by the design and present it I can use my research to identify some of the design criteria
3	<ul style="list-style-type: none"> I can explain why some of the identified design features are important I can carry out research into some of the features needed by the design I can make a few comments about how my results and research can help my design
4	<ul style="list-style-type: none"> I can explain why most of the identified design features are important I can carry out research into most of the features needed by the design and present explanations I can explain how my design will be influenced by the results of some of my research
5	<ul style="list-style-type: none"> I can identify the target market for the product I can explain why all of the identified design features are important I can carry out research into most of the features needed by my design I can explain in detail how the results of my research will influence my design

D&T Textiles Steps – Design

Step	Competency
1	<ul style="list-style-type: none"> I can draw two basic ideas I can include some labels (annotation) for each design idea, pointing out important features I can draw / show evidence of a final design
2	<ul style="list-style-type: none"> I can draw / show 3/4 ideas that are all different I can annotate / comment on how well the design meets the needs of the user I can describe some of the main stages of making my final product from my design
3	<ul style="list-style-type: none"> I can include original design ideas using colour and stating how well I satisfy most of my design criteria I can Identify / suggest a number of different techniques that could be used in my development work I can include in my final design, clear annotation of the stages step by step, needed to make my product
4	<ul style="list-style-type: none"> I can draw original and colourful design ideas that give / state the reasons for my main features I can describe how my design ideas have changed during the development of my final design proposal I can draw a final design that includes /shows / indicates my knowledge of suitable fabrics and components to use

5	<ul style="list-style-type: none"> ▪ I can show how my design has been influenced by more than one social, moral, environmental or sustainability consideration ▪ I can explain how my design ideas have been developed and improved to create my final design proposal ▪ I can draw a detailed final design that includes full details including information about social moral and environmental factors
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D&T Textiles Steps – Make

Step	Competency
1	<ul style="list-style-type: none"> ▪ I needed help / support with using tools and equipment (cutting fabric, operating a sewing machine) ▪ I have a final practical product that I made / attempted ▪ I carried out all practical work safely
2	<ul style="list-style-type: none"> ▪ I used a variety of tools or processes correctly (can thread a sewing machine with guidance) ▪ I made a final practical product that is correctly made / assembled to a satisfactory standard ▪ I have an awareness of safe working practices for all of the processes used to make my product
3	<ul style="list-style-type: none"> ▪ I used a wide variety of different tools or processes correctly (confidently thread a sewing machine) ▪ I made a final product that is generally well assembled and with a good finish ▪ I can suggest and explained how I could test my finished product and say why you would test it this way
4	<ul style="list-style-type: none"> ▪ I can select and used a wide variety of different tools or processes correctly (including CAM if appropriate), demonstrating good skills in their use ▪ I made a final product that is well assembled and to a very good overall standard ▪ I can carry out quality control checks for some features during the making of my product
5	<ul style="list-style-type: none"> ▪ I can select and use a wide variety of different tools or processes correctly (including CAM if appropriate), demonstrating good or very good skills in their use ▪ I can make a final product that is skilfully assembled and finished using well selected components ▪ I can carry out quality control checks for most of the main features during the making of my product

Food Preparation & Nutrition Steps

Course overview

At KS3 the majority of Food Technology lessons contain practical elements as students are assessed on their ability to prepare and cook a range of foods safely and hygienically. All students will cook predominantly savoury dishes to equip them with the skills required to eat a healthy and balanced diet after leaving school.

In Year 7 pupils will be developing basic skills using a wide range of healthy foods. Pupils are encouraged to follow basic recipes that allow them to express their creativity and imagination alongside developing key skills in food preparation and hygiene. Pupils are taught how to chop foods safely and hygienically as well as how to use equipment correctly. Alongside practical work, students are encouraged to develop their written work by evaluating their products and using technical language.

In Year 8 their skills will be combined with knowledge of food ingredients and nutrition. In the first unit of work pupils will develop their knowledge of different baking processes including breads, scones and pastries and in the second unit of work sauce making will be the focus and they will learn about the function of ingredients and their chemical properties with a combination of practical and theory lessons.

The Year 9 unit of work focuses on cooking a variety of food which allows students to understand a wide range of dishes with different cooking properties and nutrition. A strong focus on hygiene and safety prepares students for further study in the subject at Key Stage 4, and for a healthy lifestyle when leaving school.

Physical Education

In Key Stage 3 the PE department aims to encourage the pupils to experience and develop their knowledge and skills in a wide range of sporting activities. In Years 7 & 8 pupils are taught a 'PE lesson' (tutor groups) and a 'Games lesson' (single sex class) each week. This allows pupils to determine the learning environment in which they work best. The creative, dynamic and reflective learning environment that is developed by experiencing the wide range of activities provided encourages the pupils to make informed decisions about activities that they may wish to specialise in at a later date.

In Year 9 Pupils choose route-ways of particular activities that they wish to study (outwitting opponents, performance and replication, and variety activities). This allows them to receive an individualised education where they can have some control over the decisions that they choose to make. The route-ways are chosen largely to reflect the core principles that are covered in Physical Education.

Mapping of PE Curriculum in KS3

Key Stage 3 SoW

Year 7	PE (Tutor group)	DANCE	GYMNASTICS	HANDBALL	ATHLETICS
	GAMES (Boys)	FOOTBALL	RUGBY	CRICKET	TENNIS
	GAMES (Girls)	NETBALL	TOUCH RUGBY	TENNIS	CRICKET
Year 8	PE (Tutor group)	DANCE	GYMNASTICS	OAA	STRIKING/FIELDING
	GAMES (Boys)	FOOTBALL	RUGBY	TENNIS	ATHLETICS
	GAMES (Girls)	BASKETBALL	NETBALL	BADMINTON	ATHLETICS

SoW Designation	
STEP 1	LINK BETWEEN KS2 & 3
STEP 2-3	
STEP 4	
STEP 5	

Year 9	OUTWITTING AN OPPONENT	RUGBY	FOOTBALL	CHOICE: ATHLETICS	CRICKET	HOCKEY	HRE	VOLLEYBALL	CHOICE: LEADERSHIP ULTIMATE FRISBEE TENNIS HANDBALL
	PERFORMANCE/ REPLICATION	GYMNASTICS	CHEERLEADING		TRAMPOLINING	DANCE	DANCE	HRE	
	OUTWITTING AN OPPONENT 2	RUGBY*	FOOTBALL*		HRE	NETBALL	HOCKEY	TENNIS	
	VARIETY	HRE	BASKETBALL		VOLLEYBALL	BADMINTON	INDOOR ATHLETICS	CLIMBING	

Pupils have eight opportunities during the year to record their development of the competencies within each step. It is also important to recognise the significance that the extended curriculum gives to pupils in their personal development. This allows targets to be set and interventions to be made throughout the year. The first four modules of work in Year 7 (studied from September to February) act as a baseline level of assessment and allow pupils and staff the opportunity to make informed decisions about current level of competency. These modules always consist of a range of both team and individual sporting activities.

All pupils regardless of age, ability or gender are encouraged and given the opportunity to participate and improve their ability in a comprehensive package of activities. The "School Games" competition package of inter-house activities runs throughout curriculum and extended curriculum time in order to provide a greater range of competitive opportunities. Pupils are also encouraged to develop their leadership skills through formal leadership modules and awards.

Key Stage 3 – Course Overview

Themes for each Year group

In **Year 7** pupils learn the **fundamental techniques** of each of the different activities through themes for each activity which are stated below:

Team Activities

Games:

Football and Netball	Developing time and space.
Rugby (inc. Touch) and Handball	Outwitting an opponent when in possession.
Cricket and Tennis	Maximising scoring opportunities, restricting the opposition.

Individual Activities

Athletics	The roots of running, jumping and throwing.
Gymnastics	Floor work (agilities, balances and transitions).
Dance	Actions, Space, Dynamics and Relationships (African dance)

In **Year 8** pupils **refine and build** on these fundamental skills developing a more advanced range of skills through the following themes:

Team Activities

Games:

Football and Netball	Set piece work and transitions in play.
Rugby and Basketball	Principles of team attack and defence.
Striking games, Tennis & Badminton	Controlling the opponent(s) and understanding of rules.
OAA	Team work and problem solving
Dance	Conflict and Contact (through Capoeira and set piece 'Swan Song').

Individual Activities

Athletics	Performing to the maximum in running, jumping or throwing.
Gymnastics	Flight (Control, vaults and salto's).

Year 9 allows pupils the opportunity to **specialise and choose a route way** of activities:

Team Activities

Games:

Football and Netball	Formations of play, versatility and tactics.
Rugby, Hockey and Basketball	Transitions of play, set pieces and formations.
Striking games, Volleyball, Tennis & Badminton	Use of spins, drops and tactics.
Gymnastics	Team work, choreography and form (Sports Acro & Cheerleading)

Individual Activities

Athletics (Inc. Sports Hall)	Performing to the maximum in running, jumping or throwing.
Dance	Contrasting styles and lifts (Bhangra and Street)
Climbing	Traverses, dynamic actions and support.
HRE	Training the components of HRE.

PE Steps – Technique and Knowledge

Step	Competency
1	<ul style="list-style-type: none"> ▪ Know and describe why a warm up is important ▪ Know the three phases of a warm up ▪ Replicate simple actions correctly ▪ Identify reasons for participation
2	<ul style="list-style-type: none"> ▪ Know the difference between dynamic and static stretches ▪ Link simple skills together ▪ Demonstrate simple actions in competitive/performance situations
3	<ul style="list-style-type: none"> ▪ Know how different energy systems affect performance ▪ Demonstrate more advanced actions in isolation ▪ Consistently apply basic skills in competitive/performance conditions
4	<ul style="list-style-type: none"> ▪ Know how to train in order to develop both HRE and SRE components for chosen activities ▪ Perform advanced level skills on a regular basis during conditioned practices
5	<ul style="list-style-type: none"> ▪ Know what the principles of training are (sport, fid) and how they apply to training. ▪ Perform advanced level skills with a high degree of consistency in performance situations.

PE Steps – Tactics and Creativity

Step	Competency
1	<ul style="list-style-type: none"> ▪ Follow the lead of others in a drill situation ▪ Reacts to the movements of others ▪ Can make simple decisions given sufficient time
2	<ul style="list-style-type: none"> ▪ Looks at a situation and decides what to do next ▪ Knows how to respond in simple set situations ▪ Can make decisions in conditioned practices
3	<ul style="list-style-type: none"> ▪ Decisions start to influence individual and group strategies ▪ Decisions and strategies are planned in advance ▪ Can give advice to others around them
4	<ul style="list-style-type: none"> ▪ Decisions used to control others' movement ▪ Decisions are applied in larger competitive situations at speed ▪ Decisions made without affecting the quality of the skill
5	<ul style="list-style-type: none"> ▪ Decisions made upon others' strengths and weaknesses ▪ Decisions positively influence the outcome of the overall performance ▪ Decisions are varied but consistent in their positive outcome

PE Steps – Physical Capacity (Fitness)

Step	Competency
1	<ul style="list-style-type: none"> Can copy basic fitness exercises Knows how to take heart rate Works at approximately 50% MHR for at least five minutes
2	<ul style="list-style-type: none"> Is energetic in performances and works hard Works at approximately 60% MHR for at least ten minutes
3	<ul style="list-style-type: none"> Recognises weaknesses in performance and sets own fitness targets Exercises safely and motivates peers Works at around 70% MHR over sustained period of time
4	<ul style="list-style-type: none"> Works close to maximum intensity throughout the lesson Is able to demonstrate how to vary intensity within training Able to apply suitable individual fitness targets
5	<ul style="list-style-type: none"> Technique rarely falters despite high level intensity Persistent and resilient when overcoming physical and mental challenges Can advise others and demonstrate how to train and can adapt sessions to suit ability

PE Steps – Mental Capacity and Character

Step	Competency
1	<ul style="list-style-type: none"> Answers simple questions when prompted by the teacher Does not have to be reminded about expectations Positive when helping out others/teacher
2	<ul style="list-style-type: none"> Shows willingness to contribute answers to questions Always has correct kit and responds positively Attends at least 1 extended curricular activity or 1 hour per week
3	<ul style="list-style-type: none"> Works well in a team Wants to be used for demonstrations and model answers Seeks to improve personal knowledge Regularly attends at least 2 extended curricular activities or 2 hours per week
4	<ul style="list-style-type: none"> Knows what good etiquette is and is respectful and gracious in victory, defeat and dealings with other competitors, officials and spectators Works hard in the face of adversity and trains to improve Attends at least 3 extended curricular activities or 3 hours per week
5	<ul style="list-style-type: none"> Leads by example and may have performed at county, regional or national level Does not give up goes above and beyond to overcome challenges Attends at least 5 extended curricular opportunities or 5+ hours a week of regular exercise

PE Steps – Leadership (Lead and Officiate)

Step	Competency
1	<ul style="list-style-type: none"> Is confident to work with a partner of my choosing Can begin to take responsibility for working independently
2	<ul style="list-style-type: none"> Is confident to work with a partner and contributes to ideas and planning Can lead one part of a 3 stage warm up Can take on at least one of the roles of an official, coach or recorder
3	<ul style="list-style-type: none"> Can run at least 2 phases of a warm up Is confident in taking on more than one role Is well organised and plans what to do with a partner
4	<ul style="list-style-type: none"> Can run a full 3 part warm up Confident leading small groups of peers Can take on roles of performer, coach and official and makes plans in advance to lead a group
5	<ul style="list-style-type: none"> Can lead a large group Adapts to the changing situation Evaluates and plans for improvement in subsequent sessions

PE Steps – Evaluation (Coaching)

Step	Competency
1	<ul style="list-style-type: none"> Gives general comments on what performance looks like (aesthetics) Uses prompts effectively to identify strengths & weaknesses
2	<ul style="list-style-type: none"> Identifies strengths and weaknesses in skills Is able to work without prompts Describes skills and fitness using key terminology
3	<ul style="list-style-type: none"> Identify and explain why performances differ between individuals Can correct others in simple actions and make general changes to more complex skills in order to improve performance
4	<ul style="list-style-type: none"> Can identify strengths and weaknesses with greater degree of complexity Start to self-evaluate performance accurately Recognises causes and effects of weaknesses with improved consistency
5	<ul style="list-style-type: none"> Can refer to cause, impact and consequence of actions on performance Can self-rectify own performance as well as that of others Can give detailed advice on how to improve