



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Adventure story	<p><b>Maths</b></p> <p><b>Place Value</b></p> <ul style="list-style-type: none"> <li>read Roman numerals to 1000 (M) and recognise years written in Roman numerals</li> <li>count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000</li> <li>(read, write) order and compare numbers to at least 1 000 000 and determine the value of each digit</li> </ul> <p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</li> <li>add and subtract numbers mentally with increasingly large numbers</li> <li>solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why</li> <li>solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers</li> <li>know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</li> <li>establish whether a number up to 100 is prime and recall prime numbers up to 19</li> <li>recognise and use square numbers and cube numbers, and the notation for squared/cubed</li> <li>multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers</li> <li>multiply and divide whole numbers and those involving decimals by 10, 100 and 1000</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</li> <li>compare and order fractions whose denominators are all multiples of the same number</li> <li>add and subtract fractions with the same denominator and denominators that are multiples of the same number</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>multiply and divide numbers mentally drawing upon known facts</li> <li>divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</li> <li>solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</li> <li>recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number [for example, <math>2/5 + 4/5 = 6/5 = 1 \frac{1}{5}</math>]</li> </ul>	<p><b>Decimals and percentages</b></p> <ul style="list-style-type: none"> <li>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</li> <li>solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>1/5</math>, <math>2/5</math>, <math>4/5</math> and those fractions with a denominator of a multiple of 10 or 25</li> </ul> <p><b>Perimeter and area</b></p> <ul style="list-style-type: none"> <li>measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres</li> <li>calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes</li> </ul> <p><b>Statistics</b></p> <ul style="list-style-type: none"> <li>complete, read and interpret information in tables, including timetables</li> <li>solve comparison, sum and difference problems using information presented in a line graph</li> </ul>	<p><b>Shape</b></p> <ul style="list-style-type: none"> <li>distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li> <li>use the properties of rectangles to deduce related facts and find missing lengths and angles</li> <li>identify 3-D shapes, including cubes and other cuboids, from 2-D representations</li> <li>know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</li> <li>draw given angles, and measure them in degrees</li> <li>identify: <ul style="list-style-type: none"> <li>angles at a point and one whole turn (total 360°)</li> <li>angles at a point on a straight line and 1 2 a turn (total 180°)</li> <li>other multiples of 90°</li> </ul> </li> </ul> <p><b>Position and direction</b></p> <ul style="list-style-type: none"> <li>identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed</li> </ul> <p><b>Decimals</b></p> <ul style="list-style-type: none"> <li>read and write decimal numbers as fractions [for example, <math>0.71 = 71/100</math>]</li> <li>recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li> <li>round decimals with two decimal places to the nearest whole number and to one decimal place</li> <li>read, write, order and compare numbers with up to three decimal places</li> </ul>	<p><b>Negative numbers</b></p> <ul style="list-style-type: none"> <li>count forwards and backwards with positive and negative whole numbers, including through zero</li> <li>compare and order negative numbers</li> </ul> <p><b>Converting units</b></p> <ul style="list-style-type: none"> <li>convert between different units of metric measure</li> <li>understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</li> <li>use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling</li> <li>solve problems involving converting between units of time</li> </ul> <p><b>Volume</b></p> <ul style="list-style-type: none"> <li>compare and estimate volume and capacity</li> <li>measure the volume of shapes using cubic centimetres.</li> </ul>
	<p><b>Writing</b></p> <p><b>Inform:</b> Non-chronological report <b>Entertain:</b> Description</p>	<p><b>Entertain:</b> Poetry – cinquains <b>Entertain:</b> Narrative <b>Inform:</b> Biography</p>	<p><b>Persuade:</b> Persuasive letters <b>Inform:</b> Non-chronological report</p>	<p><b>Entertain:</b> Descriptive recount <b>Entertain:</b> Narrative <b>Entertain:</b> Poetry</p>	<p><b>Inform:</b> Explanation <b>Persuade:</b> Advertising campaign</p>	<p><b>Entertain:</b> Poetry – free verse <b>Discuss:</b> Reviews <b>Entertain:</b> Narrative</p>
	<p><b>Science</b></p> <p><b>Mixtures and separation</b></p> <p>*Explore different types of mixtures and the different methods that can be used to separate them. *Dissolve a range of substances, identify different solutions and investigate how temperature affects the time taken to dissolve. *Design and create a water filter, sieve soil and evaporate solutions.</p>	<p><b>Properties and changes</b></p> <p>*Investigate hardness, transparency and conductivity and consider how these properties influence the uses of materials. *Explore reversible changes, including dissolving and changes of state. *Compare irreversible changes, including rusting, burning and mixing vinegar and bicarbonate of soda</p>	<p><b>Earth and space</b></p> <p>*Explore some of the key celestial bodies in our Solar System and learn their names and compare their movements. *Discover the relationship between the Earth's rotation and daylight, making models to represent their knowledge. *Make their own sundials and consider how and why humans' ideas about the universe have changed over time.</p>	<p><b>Life cycles and reproduction</b> *Study animal life cycles and learn about the significance of reproduction for a species' survival. *Compare asexual and sexual reproduction in plants and grow cuttings to measure and plot root growth over time. *Compare the life cycles of mammals, birds, amphibians and insects identifying key differences.</p>	<p><b>Imbalanced forces</b></p> <p>*Explore gravity, air resistance and water resistance in more depth and consider the effect of these forces being imbalanced. *Demonstrate key principles in the classroom and plan investigations to further their understanding of the effects of these forces. *Test ideas using models and compete to build the most effective pulley system.</p>	<p><b>Human timeline</b></p> <p>*Study human development and changes to identify key stages and consider what data may help determine if a child is growing normally. *Describe how puberty affects girls and boys and produce graphs to record how gestation periods vary across different animals.</p>

					*Analyse secondary data to investigate how the amphibian life cycle is affected by predators and climate change.		<b>Does the size of an asteroid affect the size of its impact crater?</b> *Experiment, analyse data and draw conclusions to explore the relationship between the size of model asteroids and the size of the impact crater they create. *Apply understanding of gravity, air resistance and the Earth and space to make predictions and plan and carry out an enquiry
Foundation subjects	<b>Geography</b>	<b>What is life like in the Alps?</b> <ul style="list-style-type: none"> <li>discover the climate of mountain ranges and consider why people choose to visit the Alps</li> <li>focus on Innsbruck and identify the human and physical features that attract tourists</li> <li>apply learning to investigate tourism in the local area, mapping recreational land use and presenting their findings</li> </ul>		<b>Why do oceans matter?</b> <ul style="list-style-type: none"> <li>explore the significance of our oceans</li> <li>learn how humans use and impact them and how this has changed over time</li> <li>study the Great Barrier Reef and how plastic and pollution is damaging this marine environment, before considering positive environmental changes that can be made including making eco-friendly choices</li> <li>use fieldwork skills to investigate the amount and type of litter in their nearest marine environment</li> </ul>		<b>Would you like to live in the desert?</b> <ul style="list-style-type: none"> <li>explore biomes and their various characteristics</li> <li>study deserts, mapping those around the world but particularly focusing on those in North America</li> <li>learn about the physical features of a desert and consider how humans interact with and have adapted to living in the desert</li> </ul>	
	<b>History</b>		<b>British History 5: What was life like in Tudor England?</b> <ul style="list-style-type: none"> <li>compare Henry VIII and Elizabeth I and learn about the changing nature of monarchy</li> <li>learn how both monarchs tried to control the public perception of themselves using portraits and royal progresses</li> <li>use Tudor inventories to investigate whether people were rich or poor and learn about what life was like for people living in Tudor times</li> </ul>		<b>What did the Greeks ever do for us?</b> <ul style="list-style-type: none"> <li>investigate the city states of Athens and Sparta and identify the similarities and differences between them</li> <li>use different sources of evidence to learn about democracy and compare this to the ways in which other civilisations are governed</li> <li>consider the legacy of the Ancient Greeks and learn about the Olympic games, architecture, art and theatre</li> </ul>		<b>Migration</b> <ul style="list-style-type: none"> <li>learn about the different reasons for migrating to Britain by investigating the different groups of people moving to Britain including the Irish migrants, religious migrants and migrations after WWII</li> <li>look at evidence and they investigate the different experiences of migrants</li> </ul>
	<b>Computing</b>	<b>Computing systems and networks: Search Engines</b> <ul style="list-style-type: none"> <li>Understand what a search engine is and how to use it.</li> <li>Be aware that not everything online is true.</li> <li>Search effectively.</li> <li>Create an informative poster.</li> </ul> <b>Data Handling: Mars Rover 1</b> <ul style="list-style-type: none"> <li>Identify how and why data is collected from space.</li> <li>Read and calculate numbers using binary code.</li> <li>Use simple operations to calculate bit patterns.</li> </ul>		<b>Creating Media: Stop Motion Animation (Option 2)</b> <ul style="list-style-type: none"> <li>Understand what animation is.</li> <li>Understand what stop motion animation is.</li> <li>Plan a stop motion video.</li> <li>Create a stop motion animation.</li> </ul> <b>Online Safety</b> <ul style="list-style-type: none"> <li>Understand how apps can access personal information and how to alter the permissions.</li> <li>Be aware of the positive and negative aspects of online communication.</li> </ul>		<b>Programming 1: Programming music - Option 2: Scratch</b> <ul style="list-style-type: none"> <li>Tinker with Scratch music elements.</li> <li>Create a program that plays themed music.</li> <li>Plan a soundtrack program.</li> <li>Program a soundtrack.</li> </ul>	
	<b>Art &amp; Design</b>		<b>Sculpture and 3D: Interactive installation</b> <ul style="list-style-type: none"> <li>use inspiration of historical monuments and modern installations</li> <li>plan by researching and drawing, a sculpture to fit a design brief</li> <li>investigate scale, the display environment and possibilities for viewer interaction with their piece</li> </ul>		<b>Drawing: I need space</b> <ul style="list-style-type: none"> <li>develop ideas more independently</li> <li>consider the purpose of drawings to investigate how imagery was used in the 'Space race' that began in the 1950s</li> <li>combine collage and printmaking to create a piece in their own style</li> </ul>		<b>Painting and mixed media: Portraits</b> <ul style="list-style-type: none"> <li>investigate self-portraits by a range of artists</li> <li>use photographs of themselves as a starting point</li> <li>develop their own unique self-portraits in mixed-media</li> </ul>
	<b>Design &amp; Technology</b>	<b>Electrical systems: Doodlers (Aut 1)</b> <ul style="list-style-type: none"> <li>Explore series circuits and motors, removing and replacing different parts of a Doodler.</li> </ul>		<b>Mechanical systems: Make a pop-up book (Spr 1)</b> <ul style="list-style-type: none"> <li>Design a pop-up book which uses a mixture of structures and mechanisms to</li> </ul>		<b>Cooking and nutrition: Developing a recipe (Sum 1)</b>	

# BISHOP CREIGHTON ACADEMY - THE LEARNING JOURNEY OF A YEAR 5 SUPERHERO



	<ul style="list-style-type: none"> <li>Explore how the design cycle can be approached at a different starting point, by investigating an existing product, which uses a motor.</li> <li>Problem-solve and work out how the product has been constructed to develop their own.</li> <li>Create a functional Doodler that creates scribbles on paper with or without a switch.</li> </ul>		<p>illustrate the story and make it interactive for the users.</p> <ul style="list-style-type: none"> <li>Storyboard ideas for each page of the book.</li> <li>Make mechanisms and structures using levers, sliders, pivots and folds to produce movement.</li> <li>Use layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.</li> <li>Evaluate the work of others, suggesting points for improvement and receive feedback on own design.</li> </ul>		<ul style="list-style-type: none"> <li>Research and modify a traditional Bolognese recipe, adapting it to improve nutritional content.</li> <li>Suggest alternative ingredients, analysing nutritional content and writing an alternative recipe.</li> <li>Explain the farm to fork process.</li> <li>Understand cross contamination and use food safety and hygiene skills when preparing ingredients.</li> </ul>	
PSHE	<p><b>Family and relationships</b></p> <ul style="list-style-type: none"> <li>Marriage; attributes and skills for good friends; bullying</li> </ul>	<p><b>Family and relationships</b></p> <ul style="list-style-type: none"> <li>Stereotypes can be negative, unfair &amp; disruptive; discrimination of different groups of people</li> </ul> <p><b>Health and wellbeing</b></p> <ul style="list-style-type: none"> <li>Risks of sun exposure; relaxation techniques; quality sleep</li> </ul>	<p><b>Health and wellbeing</b></p> <ul style="list-style-type: none"> <li>Causes of stress; failure and success</li> </ul> <p><b>Safety and the changing body</b></p> <ul style="list-style-type: none"> <li>Online risks; sending online messages; strategies for overcoming peer-pressure</li> </ul>	<p><b>Safety and the changing body</b></p> <ul style="list-style-type: none"> <li>Menstrual cycle; external sexual body and reproductive organs; puberty; First aid - assessing a casualty's condition</li> </ul> <p><b>Citizenship</b></p> <ul style="list-style-type: none"> <li>Waste hierarchy; implications of breaking the law; role of parliament</li> </ul>	<p><b>Citizenship</b></p> <ul style="list-style-type: none"> <li>Peer pressure</li> </ul> <p><b>Economic wellbeing</b></p> <ul style="list-style-type: none"> <li>Debt, income &amp; expenditure; borrowing money; sharing of financial information</li> </ul>	<p><b>Economic wellbeing</b></p> <ul style="list-style-type: none"> <li>Career options; work-related stereotypes</li> </ul> <p><b>Transition</b></p> <ul style="list-style-type: none"> <li>Understand skills needed for roles in school</li> </ul>
PE	<p>Teacher – Swimming YDP – Netball</p>	<p>Teacher – Swimming YDP – Football</p>	<p>Teacher – Dance – Greatest Showman YDP – Fitness</p>	<p>Teacher – Gymnastics YDP – Yoga</p>	<p>Teacher – Tennis YDP – Rounders</p>	<p>Teacher – OAA YDP – Athletics</p>
Music	<p>Musical theatre</p>	<p>Composition notation</p>	<p>Composition to represent the festival of colour</p>	<p>Looping and remixing</p>	<p>Music Hub - WCIT</p>	<p>Music Hub - WCIT</p>