

**Year 8 Applied Transdisciplinary Learning curriculum**

|  |              | <b>Autumn 1</b> | <b>Autumn 2</b>       | <b>Spring 1</b> | <b>Spring 2</b>         | <b>Summer 1</b>  | <b>Summer 2</b>    |
|--|--------------|-----------------|-----------------------|-----------------|-------------------------|------------------|--------------------|
|  | <i>Title</i> | Cafe Culture    | Civil Rights Movement | Space           | Shakespeare Re-designed | Computer Science | Health and Disease |



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| <p><i>Knowledge</i></p> | <p><b>DT including food:</b><br/>Research and explore different cultures to identify and understand user needs<br/>Identify and solve their own design problems (food) understand and apply the principles of nutrition and health<br/>(food) cook a savoury dish (sandwich)<br/>Understand the source, seasonality and characteristics of a broad range of ingredients</p> <p><b>Science (Biology):</b><br/>Content of a healthy human diet<br/>Calculations of energy requirements in a healthy daily diet<br/><b>MFL:</b> Food items in French or Spanish</p> | <p><b>Music:</b></p> <p>Improvise and compose music ideas drawing on understanding of the Blues movement</p> <p>Listen to a range of music from Blues musicians</p> <p>Develop a deepening understanding of the music that they are listening to and its historical context</p> <p><b>History:</b></p> <p>Ideas, political power, industry and empire: Britain 1745 – 1901 (focus on Britain's transatlantic slave trade: its effects and eventual abolition)</p> <p><b>English:</b></p> <p>Reading works (text and poetry) from historical periods</p> <p>Recognising a range of poetic conventions and understand how they have been used</p> <p>Imaginative writing through a range of means including poetry and diary entries.</p> <p>Develop new vocabulary and use this consciously in their writing and speech to achieve particular effects</p> | <p><b>Science (Physics):</b></p> <p>Space Physics<br/>Gravity force<br/>Our Sun as a star, other stars in our galaxy, other galaxies<br/>The seasons and the Earth's tilt, day length and different times of the year, in different hemispheres<br/>The light year as a unit of astronomical distance<br/>Forces<br/>Forces as push or pulls, arising from forces between two objects<br/>Forces measured in Newton's measurements of stretch or compression as a force is changed<br/>Non contact forces: gravity forces acting at a distance on Earth and in space</p> <p><b>Science (Biology):</b></p> <p>Application of aspects of material cycles and energy<br/>How organisms affect, and are affected by, their environment, including the accumulation of toxic materials</p> <p><b>Science (Chemistry):</b></p> <p>The composition of the atmosphere on Earth (versus Mars)</p> <p><b>DT:</b><br/>Use research and exploration, such as the study of different cultures, to identify and understand user needs<br/>Develop and communicate design ideas using annotated sketches and 3D Modelling.<br/>Technical knowledge:<br/>Understand how more advanced mechanical systems used in their products enable changes in movement and force</p> | <p><b>English (including Drama):</b></p> <p>Reading:<br/>A Shakespeare Play<br/>Studying setting, plot, and characterisation, and the effects of these<br/>Understanding how the work of dramatists is communicated effectively through performance and how alternative staging allows for different interpretations of a play</p> <p>Writing:</p> <p>Writing for a wide range of purposes and audiences, including scripts and other imaginative writing<br/>Plan, draft, edit and proof-read through considering how their writing reflects the audiences and purposes for which it was intended</p> <p>Spoken English:</p> <p>Use Standard English confidently in a range of formal and informal contexts, including classroom discussion<br/>Give short speeches and presentations, expressing their own ideas and keeping to the point<br/>Participate in formal debates and structured discussions, summarising and/or building on what has been said<br/>Improvising, rehearsing and performing play scripts and poetry in order to generate language and discuss language use and meaning, using role, intonation, tone, volume, mood, silence, stillness and action to add impact.</p> <p><b>History:</b></p> <p>Society, economy and culture across the period: for example, work and leisure in town and country, religion and superstition in daily life, theatre, art, music and literature</p> | <p><b>Computer Science:</b></p> <p>Understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal]</p> <p>Understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits</p> <p>Understand a range of ways to use technology safely, respectfully, responsibly, and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</p> <p>Use logical reasoning to compare utility of alternative algorithms for the same problem</p> <p>Use 2 or more programming languages, at least one of which is textual, to solve variety of computational problems</p> | <p><b>History:</b><br/>The development of the Church, state and society in Medieval Britain (1066-1509) – The Black Death and its social and economic impact</p> <p><b>Geography:</b><br/>Extending locational knowledge of Africa/Asia<br/>Geographical similarities, differences and links between Africa/Asia<br/>Understand how human processes interact to influence and change the environment</p> <p><b>Science (basic KS4):</b><br/>The relationships between health and disease<br/>Bacteria, virus and fungi as pathogens in humans<br/>Reducing and preventing the spread of infectious diseases in humans</p> <p><b>English</b><br/>Speak confidently and effectively giving short speeches and presentations, expressing their own ideas and keeping to the point<br/>Persuasive writing and speaking<br/>Summarising and organising material<br/>Plan, draft, edit and proof-read through work considering how their writing reflects the audience and purpose</p> <p><b>Maths:</b><br/>Describe, interpret and compare observed distributions of a single variable<br/>Construct and interpret appropriate tables, charts and diagrams</p> |
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|              |   |  |  | Understand how more advanced electrical and electronic systems can be powered and used in their products                      |   |  |  |
| <i>Skill</i> | <ul style="list-style-type: none"><li>• How to complete effective research</li><li>• Consolidate literacy skills through letter writing - editing, proofreading, use of grammar and choice of vocabulary</li><li>• Digital skills - use of Google Forms to survey and process information</li></ul> | <ul style="list-style-type: none"><li>• Composition of music ideas</li><li>• Imaginative writing</li></ul> | <ul style="list-style-type: none"><li>• Research skills</li><li>• Design and modelling</li><li>• Working with others</li></ul> | <ul style="list-style-type: none"><li>• Script writing</li><li>• Debate participation</li><li>• Working with others</li></ul> | <ul style="list-style-type: none"><li>• Working with algorithms</li><li>• Programming</li></ul> | <ul style="list-style-type: none"><li>• Planning and delivering speeches</li><li>• Persuasive writing</li><li>• Presentation skills</li><li>• Numeracy</li></ul> |  |