

| Module/Unit of Learning         | Taught During   | What will students learn?  | What enriching opportunities will students engage in? | Links to other Subjects |
|---------------------------------|-----------------|--|---|-------------------------|
| <b>Python Programming</b>       | Autumn – Term 1 | In this unit, learners will use python programming to program a series of mini project including mini games, physical computing devices and text-based apps.   |   |                         |
| <b>The impacts of Computing</b> | Autumn – Term 2 | Through a range of real-world examples, students will learn how to identify the specific type of impact, i.e. legal, cultural, privacy, environmental, and ethical. They will then progress to identifying stakeholders who are impacted by technology, and learn how these impacts are experienced, negated, or adapted to.   |   |                         |
| <b>Data Science</b>             | Spring – Term 1 | In this unit, learners will be introduced to data science, and by the end of the unit they will be empowered by knowing how to use data to investigate problems and make changes to the world around them. Learners will be exposed to both global and local data sets and gain an understanding of how visualising data can help with the process of identifying patterns and trends. |   |                         |
| <b>Experience A.I</b>           | Spring – Term 2 | Throughout this unit, students will experience a variety of real-world AI applications and be made aware of the ever-increasing range of AI-related careers. As well as considering the social and ethical implications of AI developments, students will have the opportunity to delve deeper and explore machine learning models and the engines that make them work.                |   |                         |

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| <b>Creative Project – Climate App Development</b> | Summer – Term 1 | In this unit students will explore the fundamentals of app development from initial ideas, to planning to development. Throughout the unit students will develop an app to help solve a real world climate issue.   |  |  |
| <b>Animation</b>                                  | Summer – Term 2 | In this unit learners will discover how professionals create 3D animations using the industry-standard software package, Blender. By completing this unit learners will gain a greater understanding of how this important creative field is used to make the media products that we consume. Sessions will take learners through the basics of modelling, texturing, and animating; outputs will include 3D models and short videos. |  |  |