St Peter's Catholic School

Faith is our Foundation

2022-2023 Year 7 Curriculum and Assessment Plan for Computing

The curriculum and assessment of pupils at this stage of education has been carefully designed to

By the end of year 7 students will have explored a wide variety of areas of computing including Computer Science, Digital Literacy and Information Technology. They will be exposed to using a desktop environment to help develop their confidence with digital literacy which can support them with all subjects at secondary school. They will be able to express themselves and develop ideas using the computer systems. They will also be taught social, ethical, cultural and moral skills.

Half Term 1: **All pupils will know:** Desktop Introduction (IT/DL) E-Safety & Cyberbullying (IT/DL) **All pupils will be assessed by:** Baseline assessment MCQ Presentation on online age restrictions. **Impact- Why do we teach this?** Many students begin without extensive knowledge of the desktop user environment. This gives them the opportunity to become more familiar with this which then enables them to progress in future projects in Computing and other subjects. They will also be taught about the use of social media, both acceptable and unacceptable. This has strong links to the Catholic Pupil Profile where we teach being kind and considerate to others online. Students will 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.	**Subject specific skills being developed:** • Digital literacy skills • IT Skills • Vocabulary • Social, ethical, cultural and moral Skills **Reading Skills needed for this unit:** **Key Vocabulary:** Digital Footprint, Social Network, Sharing, CEOP, Explain, Describe. **Opportunity for cross-curricular skill development** • Digital Literacy across all subjects – The ability to find, evaluate, utilize, share and create content using Information Technologies and the Internet.	**Half Term 2:** **All pupils will know:** Using The Internet (IT/DL) **All pupils will be assessed:** Desktop publishing document and online assessments **Impact - Why do we teach this?** This will enable students to have the skills to perform online research effectively and be able to spot any biased or unbiased articles or reporting. It will also give students the ability to highlight stories which be promoting fake news. This will ensure students are responsible, competent, and confident users of Information Technology	**Subject specific skills being developed:** • Digital literacy skills • IT Skills • Social, ethical, cultural and moral Skills • **Reading Skills needed for this unit:** **Key Vocabulary:** Fake News, Inaccurate, Biased, Untrustworthy, Reliable, Accurate, Search Engines, Boolean **Opportunity for cross-curricular skill development** • Literacy – The importance of checking content accuracy and proof –reading own content and utilizing the tools provided through IT	**Half Term 3:** **All pupils will know:** Scratch Programming (CS) **All pupils will be assessed:** Game creation and online assessments. **Impact - Why do we teach this?** Using computational abstraction to solve computational problems and to design and develop modular programs. Scratch give the students an introduction to the key fundamentals of programming such as sequence, selection, iteration and assigning data. Students can use these fundamentals to become creative with their computer.	**Subject specific skills being developed:** • Computer Science • Programming Fundamentals • Computational Thinking • **Reading Skills needed for this unit:** **Key Vocabulary:** Explore, describe, explain, evaluate, sequence, selection, iteration, variable **Opportunity for cross-curricular skill development** • Numeracy – Mathematical operators, formulae and graphing through IT.
Half Term 4: **All pupils will know:** Python Introduction (CS) **All pupils will be assessed:** Documented Python code and online assessments. **Impact - Why do we teach this?** Using computational abstraction to solve computational problems and to design and develop modular programs. This unit gives the	**Subject specific skills being developed:** • Computer Science • Programming Fundamentals • Computational Thinking • Problem Solving and analysis	**Half Term 5:** **All pupils will know:** Spreadsheets Basics (IT/DL) **All pupils will be assessed:** Annotated spreadsheets and online assessments. **Impact - Why do we teach this?** To undertake a project that involve selecting and using data in a new application. Allows the students to achieve challenging goals including collecting and analysing data.	**Subject specific skills being developed:** • Autofill. • Basic formatting features. • Arithmetic operators: =, +, -, /, *. • Referencing cells. • Basic formulae. • Basic functions: SUM, AVERAGE, MIN, MAX. • Formatting print output. • Generating graphs and	**Half Term 6:** **All pupils will know:** Multimedia – using Moviemaker and Audacity (IT/DL) **All pupils will be assessed:** Combined video and audio file and online assessment. **Impact- Why do we teach this?** Allows students to undertake a creative project using multiple applications to achieve a challenging goal. The students are taught how to create and edit sound files using	**Subject specific skills being developed:** • Introduction to a range of unexplored software packages • The ability to find, evaluate, utilize, share and create content using Information Technologies

students to take the key fundamentals they have learnt in the previous unit and use them with a programming language. It gives them an understanding how hardware and software components communicate and allows them to design and develop computational abstractions of physical systems.		Students will become more confident with spreadsheet creating and using a range of functions and formulas. This topic builds on the basic knowledge and understanding of spreadsheets from their Primary education. Student's digitally literacy is developed by enabling them to use, express themselves, and develop their ideas through information technology, which will be progressively built on in subsequent years to reach a level suitable for the future workplace and as active participants in a digital world.	charts from a given data set. ● Spreadsheet planning. ● Spreadsheet modelling. ●	Audacity. As well as creating their own they are also given digital artefacts for them to edit. They are also taught how to use Moviemaker to create short films and edit them. The project will then require the student to combine the sound file they created in Audacity with their Moviemaker project.	
	Reading Skills needed for this unit: **Key Vocabulary:** Explore, describe, explain, evaluate, sequence, selection, iteration, variable		**Reading Skills needed for this unit:** **Key Vocabulary:** Cell, Rows, Columns, Value, Worksheet, Formula, Loops, Sequence, Conditional Statement		**Reading Skills needed for this unit:** **Key Vocabulary:** Snipping, Fade, Edit, Transition, Effects, Explore
	Opportunity for cross-curricular skill development ● Numeracy – Mathematical operators, formulae and graphing through IT.		**Opportunity for cross-curricular skill development** ● All subjects – Print layout formatting, formatting. ● Maths – Statistics ● Science – Analysis and evaluation ● Geography - Analysing and interpreting different data sources		**Opportunity for cross-curricular skill development** ● Digital Literacy across all subjects – The ability to find, evaluate, utilize, share and create content using Information Technologies and the Internet. ● Literacy – The importance of checking content accuracy and proof –reading own content and utilizing the tools provided through IT.

Ensuring this curriculum meets the needs of all pupils: this curriculum has been designed to ensure pupils from all starting points will develop the key curriculum skills and knowledge identified. The curriculum design ensures that each unit forms part of the overall learning journey and there are opportunities for revisiting skills and linking together key pieces of knowledge. Whole Academy policies and practices are followed to tailor the delivery of the curriculum for individuals and groups of students. For example SEND students have individual learning profiles that outline needs/strategies to be used. Ongoing formative assessment and clear summative assessment points allow individual staff and departments to identify misconception and adjust curriculum appropriately.

Enrichment opportunities:
- Coding Club
- Visits/Trips

Career opportunities/ links: Administration / Software developer / Software engineer / Cybersecurity / Research and analysis / Production