



William Shrewsbury Computing Curriculum Intent 2019 - 20

If you don't want to learn, nobody can make you. If you are determined to learn, nobody can stop you.

To become responsible, competent, confident and creative users of information and communication technology. To be future-ready.

Intent	Implementation	Impact (How can we prove this?)
<p>To become responsible, competent, confident and creative users of information and communication technology. To be future-ready.</p>	<ul style="list-style-type: none"> ● teach children to use technology safely, responsibly and respectfully. ● recognise acceptable and unacceptable behaviour. ● understand the implications of irresponsible behaviour. ● know and understand ways to report concerns about content and contact. 	<ul style="list-style-type: none"> ● children are observed discussing how to stay safe on the internet, they create work to teach others how to do so, children report others who they think are behaving in an unsafe manner. ● our children keep themselves safe on the internet. ● they report online issues. ● mark sheets - all classes are taught ESafety at the beginning of each half term. ● Assemblies - E Safety week and key stage assemblies. ● POP UK - E Safety with KS2.
<p>To develop an understanding of computer science. including abstraction, logic, algorithms and data representation.</p>	<ul style="list-style-type: none"> ● Use and combine a variety of software: Raspberry Pi, Python, Scratch, Kodu, Espresso Coding, OSMO Coding, BeeBots, Garageband, Google SketchUp, Google Classroom. 	<p>Pupils will leave us having built and coded a raspberry Pi using Python. They will have created their own land and algorithms to build their own games on Kodu and Scratch. Children will be able to generate their own code to create a set of instructions to</p>



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	<ul style="list-style-type: none"> ● Children will create algorithms and de-bug programmes using Espresso, BeeBots and Osmo. ● Children will experience inputting data, organising data and analysing data using both microsoft and google programmes. ● children will experience abstraction using microsoft products and google sketch up. 	<p>solve a problem using Espresso Coding, OSMO coding and BeeBots. They will also be able to spot problems de-bug.</p> <p>Children will have experienced abstraction through Google Sketch up.</p> <p>Children will be able to input and organise data using a range of programmes including microsoft and google.</p>
<p>To analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.</p>	<ul style="list-style-type: none"> ● children will use Espresso Coding throughout each academic year. here they build up their skills to code and debug. they then create their own games and analyse each others. ● children in KS2 create their own lands, characters, code them and debug them using KODU. ● students in Year 5 create their own game on Scratch - inputting code and debugging. 	<p>Children leave the school being able to input code into many systems, having a broad knowledge of many instructions and systems to do so. they will also have experience of debugging their own code and a partners.</p> <p>children will have crated at least 3 different computer games independently, inputting the code, creating the land and debugging them.</p>



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<p>To evaluate and apply information technology, including new or unfamiliar technologies and analytically solve problems.</p>	<ul style="list-style-type: none"> • children evaluate each others work at the end of most modules, particularly in KS2 when they have created their own games. • success criteria at the end of each lesson is looked at - how have they succeeded? • Computing leads are always keeping up to date with new technologies and talking to other Computing Leads within the MAT to make sure we are up to date. • children solve problems by using code in both key stages. 	<p>children leave having written evaluations, scored each others work, offered suggestions for improvements and debugged/improved their own and others work.</p>
<p>To deliver a high quality computing education to use computational thinking and creativity to understand and change the world</p>	<ul style="list-style-type: none"> • link with maths, science and design technology. • use computing to develop insights into the natural and artificial systems studied in the above subjects (e.g. VR headsets to look inside the natural human body) • Raspberry Pi Club - children to create code using Python, use this to control and build raspberry Pis, build a Raspberry Pi computer. 	<p>Their are strong cross curricular links within all subjects. Staff are trained and given a wide range of suggestions of how to link and use ICT in lessons. Children have expansive experiences of a wide range of ICT equipment, software resources. Children are aware of how their experiences may help them with jobs in later life. children leave with a breadth of experiences and skills within ICT - fully prepared for KS3 onwards.</p>



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	<ul style="list-style-type: none">• skills progress throughout each year group, careful consideration has been given to making sure excellent progress happens with all skills year on year.	