



Computing Curriculum Intent Statement



At Westacre Middle School, we aim to foster a life-long love of learning, through adopting a practical and cross-curricular approach. Our Creative Curriculum aims to deliver a world class education that will equip our children with the skills required to be independent and responsible citizens. The curriculum matches our whole school vision, which fosters an atmosphere of inspiration, challenge and achievement. “Inspire. Challenge. Achieve”

Why do we teach Computing?

Computing is an important component in our vision to prepare every child for their future. Our curriculum has been designed to ensure every learner is challenged, and inspired. Our approach ensures technology can enhance and support all learners, giving them the tools to be creative using a wide range of applications.

The Computing Curriculum is comprised of three Key areas of study: Computer Science; Digital Literacy and Information Technology

Computer Science.

The study of the hardware, software, networking and processes that give life to a machine to enable it to perform complicated tasks and actions such as coding a Maths quiz or a platform game.

Digital Literacy

Learning to use technology appropriately and responsibly to survive and thrive in the digital world. It is at the forefront of all lessons and is embedded through assemblies and e-safety days throughout the year.

Information Technology

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Computing in the 21st Century is seen as an essential area of learning. At Westacre Middle School we recognise that technology plays an important role in the everyday lives of children, young people and adults. Consequently, we endeavour to build in the use of new technologies in order to equip young people with the skills they will need to access life-long learning and employment. We are delighted to provide children with the opportunity to use a wide range of resources to deliver our curriculum. Computing cultivates computational thinkers with a wide range of skills including tinkering, creating, debugging, persevering and collaborating.

Children at Westacre have access to a wide variety of technology and software from our two dedicated computing areas to our portable iPads and VR (virtual reality) headsets.

As is the nature of the subject, the technology we embed is ever changing therefore we actively keep up to date through ongoing professional development. As a result, staff are dedicated to creating engaging and inspiring lessons which encompass all areas of the National Curriculum. We foster a creative approach to teaching where cross curricular links, between Computing and other subjects, enable real life contexts for learning.

Key Concepts in Computing

Key concepts tie together the subject topics into meaningful schema within our skills progression maps. The same concepts are explored in a wide breadth of topics across all year groups. Through this ‘forwards-and-backwards engineering’ of the curriculum, students return to the same concepts over and over and gradually build understanding of them. In Computing, the key concepts are Computer Science, Digital Literacy and Information Technology.

Knowledge Categories in Computing

Knowledge categories in each subject give children a way of expressing their understanding of the key concepts and linking their learning across the year groups. In Computing, the knowledge categories are Programming, Systems, Computational Thinking, Computer Networks, Careers, Inspirational People, Safe and Responsible use, Productivity and Creativity.

SMSC

Computing is an important aspect of our teaching at Westacre, in the subject specific lessons, and across the whole curriculum, preparing children for their working lives. Our curriculum is designed to ensure all children are successful, challenged and inspired.

Our technology enhances and supports all learners, giving them the tools to independently become creative, using a vast range of tools.

Spiritual: Computing gives children the tools to explore the world around them. Developing an understanding of how to use various apps and websites ensures children are able empathise with those from different cultures, learning more about places they will never have the opportunity to visit.

Moral: Children have opportunities to discuss the expectations of being online in school and at home. National Online Safety Day ensures children come together as a school to discuss appropriate use of the internet, whilst continuing this practice throughout computing and the wider curriculum during the year. Children are given opportunities to discuss how to stay safe online and how to talk to adults when they are feeling unsafe online.

Cultural: During computing lessons, children explore the world through access to the internet. They are given opportunities to research places and people which they would be unable to visit without access to the internet. Aspirations within the computing world are discussed with children, regarding careers using computing as a skill.

Social: The computing curriculum gives children the opportunity collaborate together, designing, building and problem solving. The e-safety expectations of staff are made clear during computing lessons and there are opportunities throughout the school year for staff and children to discuss the use and misuse of social media. During these discussions, children are reminded of the organisations or individuals that they can turn to when there are issues with using social media and keeping themselves safe.

How we promote Aspirations in Computing

We encourage pupils to consider how they can use Computing within the area of work they are thinking of working in and, where pupils do not know what they would like to do in the future, we help them identify areas Computing will support a wide range of careers. We speak to our pupils about how they have the opportunity to use their learning of programming and using IT to their advantage whereby there is a shortage in people in industry with these skills. We move pupils from having little or no idea or in where they can use these skills in the future to being excited at the fact of “being able to work for Google” and other technology companies.

How we promote Communication in Computing

Our pupils are taught Digital Literacy throughout their time at Westacre. These E-Safety lessons and foci points within lessons enable our pupils to become mature and effective communicators when using technology and are able to evaluate and consider how their actions online might affect another person and that what is posted online is part of “real life”. We use a range of software to enable communication whilst also discussing what is sensible and appropriate to include in any piece of work or any information that is posted online. Every lesson our pupils have an opportunity to have dialogue relating to the computing world; this may be in the form of group discussions, class discussions, question and answer or presentation.

How we promote Diversity in Computing

It is vital that our pupils understand that Computing is a widely diverse subject. At Westacre we recognise that there is a gender gap in pupils studying Computer Science and IT qualifications later in life and also in the workforce, in the favour of males. We encourage all pupils to engage with lessons and extra curricula activities within computing of which we find pupils of both genders engage very well. Our curriculum covers careers with carefully selected videos that include people from different cultures, genders, ages, sexual orientation, race/ethnicity and economic backgrounds.