

Computing

Intent

At Dartford Primary Academy we believe that the computing curriculum should promote curiosity and a love and thirst for learning. It is ambitious and empowers our children to become independent and resilient learners. We want to equip them with not only the minimum statutory requirements of the computing National Curriculum but to prepare them for the opportunities, responsibilities and experiences of the outside world safely. We want our children to use the vibrancy of our great world to learn from other cultures, respect diversity, co-operate with one another and appreciate what they have. The International Baccalaureate Primary Years Programme is key to helping us achieve this by providing a strong SMSC curriculum, with British Values and our core values placed at the heart of everything we do. We ensure pupils know how to use all aspects of the digital world safely and what to do if something worries them.

In our curriculum we aim to ensure all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology

Implementation

In March 2020, a complete audit of the computing curriculum was conducted. On the back of the findings from this audit, the computing curriculum has been carefully built and the learning opportunities and assessment milestones for each year group crafted to ensure progression and repetition in terms of embedding key learning, knowledge and skills. We empower our staff to organise their own year group curriculums under the guidance of our subject leaders. Teachers are best placed to make these judgements. We believe aspects of computing can be woven in all subjects in order to build the children's digital literacy and ICT skills. They link prior knowledge to new learning to deepen children's learning. Teachers ensure they look at where the current learning will take them in the years following. Pupils have the opportunity to work with and on a variety of digital devices. In every lesson at every relevant opportunity, we teach children how to stay safe online.

Impact

We use both dynamic and formative assessment to ensure pupils receive relevant feedback in a lesson and through tailoring our lessons based on the assessments made. We aim to use computing to enable children to communicate and manipulate their ideas through the concepts of Computer Science and digital literacy. Much of the subject-specific knowledge developed in our Computing lessons equips pupils with experiences which will benefit them in secondary school, further education and future workplaces, from research methods to use of presentation and creative tools to critical thinking. They learn how to keep themselves safe whilst working in these ways. Through learning computing at Dartford Primary Academy the children become responsible, competent, confident and creative users of information and communication technology. This gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives.

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Computing Curriculum Map



Computing Curriculum Map - Autumn Term						
Term	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1 Who we are	Data Retrieving and Organising	Data Retrieving and Organising	Esafty Communicating	Presentation	Esafty Using the internet	Data retrieval
Autumn 2 Where we are in time and place	Communicating	Communicating	Using the internet	Using the internet	Databases	Communicating
Computing Curriculum Map - Spring Term						
Spring 1 How the world works	Data Retrieving and Organising Algorithms and Programs	Algorithms and Programs	Databases	Communicating	Communicating	Databases
Spring 2 How we organise ourselves		Data Retrieving and Organising	Presentation	Databases	Algorithms and Programs	Algorithms
Computing Curriculum Map - Summer Term						
Summer 1 Sharing the planet		Communicating	Data retrieval	Data retrieval	Data retrieval	Using the internet
Summer 2 How we express ourselves	Data Retrieving and Organising Communicating	Algorithms and Programs	Algorithms	Algorithms	Presentation	Presentation

DETERMINED PERSISTENT ACHIEVERS
Learning to Change the World