

Curriculum Intent Statement for Computer Science at Clifford Holroyde

Intent

At our school we want pupils to be masters of technology and not slaves to it. Technology is everywhere and will play a pivotal part in students' lives. Therefore, we want to model and educate our pupils on how to use technology positively, responsibly and safely. We want our pupils to be creators not consumers and our broad curriculum encompassing computer science, information technology and digital literacy reflects this. The intent of our computing curriculum is to deliver a curriculum which is accessible to all and will inspire happy, confident, independent learners who are prepared for adulthood.

The curriculum has been developed by using and widening the National Curriculum objectives in order to produce a broad and balanced progressive, sequential long term plan with consideration of the local area and resources. All aspects of which comply with Careers Education, Information, Advice and Guidance (CEIAG). The aim of this curriculum is to ensure that the skills and knowledge gained in Key Stage 3 prepares students for subject specific qualification based learning in key stage 4. As a result of this they will:

- Increase and develop computing skills, concepts, knowledge and attitudes for both now and as adults in all settings.
- Increase and develop creativity using a range of programmes.
- Increase and develop creativity using a range of equipment and devices which are used in modern life.
- Develop and use skills in planning, data collection, investigation, analysis, evaluation and discussion.
- Develop interest in technology through learning about the history, benefits and future of technology. Why these technologies are important and how they work.
- Be prepared to live safely in an increasingly digital British society.
- Be able to manage their own wellbeing regarding the use of social media.
- Be able to support friends and family in an increasingly digital British society.
- Use technology to promote and support mental health and wellbeing through hobbies and interest.

In order to assess against the scheme of work, objectives have been taken and widened from the national curriculum objectives. These assessment areas relate directly to the three strands within the programme of study for computing; digital literacy, information technology and computer science. A progressive assessment tracker maps the key skills and knowledge children have developed against the scheme of work. The impact is measured during a lesson by lesson basis as well as during a summative and formative assessment period.

We would expect to see knowledge communicated via the following modes

- Discussion
- Creating pictures
- Recording Drama/ role play
- Making 3D models
- Writing
- Using other devices
- Statistics/ tables/graphs/charts
- Sound/audio/film recordings
- Evaluations of work

At KS4 students all students are given the opportunity to study IT User Skills giving them a wide range of IT skills that are used in the modern world including Graphics Design, Media Production & IT Security where they will go on to develop key problem solving skills useful in a range of disciplines as well as software development skills that will give them an opportunity to work or for further study in the developing area seen to be key in the modern world.

Implementation (Pedagogy)

In Computing, like all other subjects, we recognise the importance of the methods and practice of teaching (the pedagogy) we chose to use in enabling pupils to know more, understand more and remember more. In Computing, the following approaches will be used, and be evident in pupils' work, in order to ensure that the Computing learning opportunities are as effective as possible and that pupils progress throughout the year and across year groups during their computing experiences in school:

Teaching sequence in Computing	Big picture: Equip our learners to use technology safely and effectively both now and as adults in all settings. To be aware of how technology can promote and support wellbeing and mental health.	Possible pedagogical approaches used in Computing.	Behaviourism	Direct teacher instruction; modelling of skills and techniques; demonstration
	Inspire and develop creativity within students through a range of platforms, programmes and devices		Constructivism	Inquiry-based learning, Learners have been given the opportunity to complete projects in new and exciting technologies such as radio stations, podcasting and filmmaking which relate to technology in our daily lives.
	Posing a problem to be solved in a context the children understand using appropriate software.		Social Constructivism	Teacher modelling; questioning; mix of individual, paired and group instruction
	Experimenting and investigating with different software and programming techniques		Liberationism	Pupil-led learning; opportunities to showcase projects and creative work
	Research, plan and create own design, multimedia and programming work, applying new skills and knowledge.		Learning, working and talking about computing	Being introduced to the key vocabulary relating to Computing so that all children can confidently articulate their ideas, knowledge and skills within the five assessment areas of computing; programming, using programmes and handling data, design and multimedia, technology in our lives and e-safety and using the internet
	Critically evaluating their own and others work. Continuously improve work after evaluation.			
	Present work in groups, pairs or independently (where appropriate) Display or show creation to a live audience or publish online/school tv system/audio system.			

It's in our DNA...

In Computing we use a teaching model called 'DNA' to make sure that pupils have a great learning experience in and outside of the classroom. DNA breaks down as:

- D – Differentiated for support and challenge
- N – New and exciting learning opportunities
- A – Active Learning

The skills that pupils gain by using the DNA model are designed to help prepare them for any challenges they may face during their time in secondary school, including exams, and in the future.

There are 8 strands of DNA, each with their own symbol. These symbols are used in every lesson, so pupils will know instantly how best to complete an activity and what skills they will need

Our DNA strands



Resilience:

The ability to recover quickly from difficulties; toughness.



Reflection:

To give serious thought or consideration/ contemplation / deliberation to an idea.



Independence:

The fact or state of being independent; self- determination.



Questioning:

To ask (someone) questions, feel or express doubt about (subject); raise objections to (someone/something).



Critical Thinking:

The objective analysis and evaluation of an issue in order to form a judgement.



Stretch and Challenge:

To try new things that may be difficult at first.



Collaboration:

The action of working together to produce something.



Creativity:

The use of imagination or original ideas to create something; inventiveness.

Impact of the Curriculum

We encourage our children to enjoy and value the curriculum we deliver. We will constantly ask the WHY behind their learning and not just the HOW. We want learners to discuss, reflect and appreciate the impact computing has on their learning, development and well-being. Finding the right balance with technology is key to an effective education and a healthy life-style. We feel the way we implement computing helps children realise the need for the right balance and one they can continue to build on in their next stage of education and beyond. The way pupils showcase, share, celebrate and publish their work will best show the impact of our curriculum. We also look for evidence through reviewing pupil's knowledge and skills digitally and observing learning regularly

The Computing curriculum at Clifford Holroyde will make a profound, positive impact to the outcomes of all student. Students will be equipped with traits that reflect resilient learners. We will know that this is true as we are delivering a high standard of education, quality assured through qualitative and quantitative measures such as:

- Attainment and Achievement outcomes
- Observing lessons and scrutinising planning
- Standards of learning in books
- Student voice
- Destination data
- Attendance data
- Behaviour data