Corpus Christi Catholic Primary School

Computing Policy

Computing Rationale

Computing prepares pupils to participate in a rapidly changing world and high quality computing education equips pupils to use computational thinking and creativity to understand and change the world (computing programme of study, cfE,2013). At the core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Computing also ensures that pupils become digitally literate being able to use, express themselves and develop their ideas through information and communication technology at a level suitable for the future workplace. Pupils use ICT to find, explore, analyse and present information responsibility and creatively. ICT promotes initiative and independent learning, with pupils being able to make informed judgements about when and where to use ICT to its best effect.

Aims

Corpus Christi Catholic Primary school believes that every child should have the right to a curriculum that champions excellence; supporting pupils in achieving to the very best of their abilities. We understand the immense value technology plays not only in supporting the Computing and whole school curriculum but overall in the day-to-day life. We believe that technology can provide: collaborative learning opportunities; engagement of pupils; easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

Our aims

- Provide an exciting, rich, relevant and challenging Computing curriculum for all pupils.
- Teach pupils to become responsible, respectful and competent users of data, information and communication technology.
- Provide technology solutions for forging better home and school links.
- Enthuse and equip children with the capability to use technology throughout their lives.
- Teach pupils to understand the importance of governance and legislation regarding how information is used, stored, created, retrieved, shared and manipulated.
- Use computing as a tool to enhance learning throughout the curriculum.
- Give children access to a variety of high quality hardware, software and unplugged resources.
- To develop the understanding of how to use computing safely and responsibly.

- Meet the requirements of the national curriculum programmes of studying for computing.

Computer Science

- To enable children to become confident coders on a range of activities.
- To create opportunities for collaborative and independent learning.
- To develop children's understanding of technology and how it is constantly evolving.

Digital Literacy

- To enable a safe computing environment through appropriate computing behaviours.
- To allow children to explore a range of digital devices.
- To promote pupil's spiritual, moral, social and cultural development.

Information Technology

- To develop ICT as a cross-curricular tool for learning.
- To promote learning through the development of thinking skills

Curriculum

As a school, we have chosen to use the Purple Mash Computing Scheme of Work from Reception to Year 6 as well as other incorporating other programmes such as 'Switched On' and 'Code.org' to ensure the children's needs are met. The schemes of work supports our teachers in delivering fun and engaging lessons which help to raise standards and allow all pupils to achieve to their full potential. We are confident that the scheme of work more than adequately meets the national vision for Computing. It provides flexibility and strong cross-curricular links.

Early Years

We aim to provide our pupils with a broad, play-based experience of Computing in a range of contexts. We believe the following:

- Early Years learning environments should feature ICT scenarios based on experience in the real world, such as in roleplay
- Recording devices can support children to develop their communication skills. This is especially useful for children who have English as an additional language.

- Pupils gain confidence, control and language skills through opportunities to 'paint' on the interactive board/devices or control remotely operated toys.
- Outdoor exploration is an important aspect, supported by ICT toys.

Key Stage 1

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Write and test simple programs.
- Organise, store, manipulate and retrieve data in a range of digital formats.
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2

- Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs
- Use sequence, selection and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs.
- Describe how Internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
- Understand computer networks including the internet; how they can provide multiple services, such as the worldwide web; and the opportunities they offer for communication and collaboration.

Teaching and Learning

Across Key Stage 1 and Key Stage 2, our children will use technology to:

- Learning programming by using programmable toys, program on screen, through animation, develop games and micro:bit.
- Develop their computational thinking through filming, exploring how computer games work, finding and correcting bugs in programs, creating interactive toys and cracking codes.

- Develop computing creativity by illustrating an eBook, taking and editing images, shooting and editing videos, producing digital music and creating geometric art.
- Investigate computer networks through finding images using the Web and researching a topic.
- Communicate and collaborate by producing eBooks, email and blog pages.
- Understand the need for productivity as a life skill through creating surveys and analysing results.

Teacher's planning is differentiated to meet the range of needs in each class. A wide range of teaching and learning styles are employed to ensure all children are sufficiently challenged. Children may be required to work individually, in pairs or in small groups according to the nature of the task. Different outcomes may be expected depending on the ability and needs of the individual child.

Assessment

Assessment in computing consists of a prior knowledge map, which enables children to demonstrate connected knowledge held in the long term memory. This also helps to identify any misconceptions to be addressed. We assess the children's work in computing whilst observing them working during lessons. Teachers record the progress made by children for each unit of work following in line with other foundation subjects across the school. In doing so this highlights implications for future teaching and informs future planning within the subject. Formative assessment occurs on a lesson-by-lesson basis determined by the success criteria of the lesson. Learning may be recorded in many ways including: a written summary of learning, printed screen shots of creations, saved programs, online portal work, power points, word documents, written work, photographs and video recording. As such, children's work is marked and written feedback given only where appropriate. This information is in turn used to ensure teacher can mark off end of year expectation targets for each child. Through using the progression of skills documents teachers can evaluate progress. Children are encouraged to self, peer and group assess work in a positive way using online collaborative tools in Purple Mash.

Resources

- A range of resources is available which successfully supports delivering the Computing curriculum and enables all learners to reach their full potential.
- The Computing Leader keeps up to date with the latest technology resources and will make informed decisions about possible procurement of them through their own research.

- Suggestions for getting the very best out of the resources are made available to teaching and support staff by SLT and subject leader.
- Resources are suitably maintained and replenished when needed, which is overseen by the Computing Leader.
- An itemised list of all resources is shared with staff and kept up to date by the Computing Leader.
- . Audits of school resources are conducted regularly by the Computing Leader.
- A resources list to match the progression document is available to all staff.

Inclusion

At Corpus Christi Catholic Primary school, we aim to enable all children to achieve to their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, EAL speakers and SEN statement and non-statemented. We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities. With this in mind, we will ensure additional access to technology is provided throughout the school day and in some cases beyond the school day.

Monitoring, Evaluation and Feedback

Monitoring standards of teaching and learning within Computing is the primary responsibility of the Computing Leader. All teachers are expected to keep track of children's progress using end of year expectations and end of unit assessment. When using purple mash units staff should keep samples of work on the online portal or in ICT workbooks Details of monitoring and evaluation schedules can be found in the Computing Action Plan.

Monitoring will be achieved through:

- Work Scrutiny (Online Portal/ICT work books)
- Learning Walks
- Observations
- Pupil Voice
- Teacher Voice
- Reflective teacher feedback

Evaluation and feedback with be achieved through:

- Using recognised standards documents for end-of-year expectations.
- Using national standard for benchmarking computing provision.
- Written feedback on evaluation of monitoring activities to be provided by the Computing Leader.
- Feedback on whole school areas of development in regard to Computing to be fed back through insets /staff meetings.

Role and Responsibilities

Head Teacher

- Monitoring the implementation of the Computing Policy and its associated policies such as the Safeguarding and SEND Policies.
- Ratifying (in conjunction with the Governing Body) the Computing policy, Safeguarding policy and Computing Leader's Action Plan.
- Securing technical support service contracts and infrastructure maintenance contracts.
- Approving CPD and training which is in line with the whole school's strategic plan.
- Creating in conjunction with the Computing Leader, a long-term vision for Computing which includes forecasted expenditure and resources.
- Monitoring the performance of the Computing Leader in respect to their specific job role description for Computing.

Computing Lead

- Raising the profile of Computing
- Monitoring the standards of Computing and feeding back to staff in a timely fashion so they can act on areas for development.
- Ensuring assessment systems are in place for Computing.
- Maintaining overall consistency in standards of Computing across the school.
- Auditing the needs of the staff in terms of training/CPD.
- Actively supporting staff with their day-to-day practice.
- Seeking out opportunities to inspire staff in developing their practice through modelling and sharing new ideas, approaches and initiatives.
- Attending training and keeping abreast with the latest educational technology initiatives.
- Using nationally recognised standards to benchmark Computing
- Creating action plans for computing and supporting a long term vision which feeds into the whole school development plan.

- Keeping an up-to-date log of all resources available to staff.
- Procuring physical and online resources that demonstrate best value.
- Reviewing the Computing curriculum and developing it as needed.
- Working as needed with the SENCO/Head Teacher to ensure online safety provision is above adequate and all legislation is in place.

Safeguarding: Online Safety

Online safety is of high importance at Corpus Christi Catholic Primary School. We ensure this profile is maintained and that pupil needs are met by the following:

- A relevant up-to-date online safety curriculum which is progressive from Early Years to the end of Year 6.
- Through our home/school links and communication channels, parents are kept up to date with relevant online safety matters, policies and agreements.
- They know who to contact at school if they have concerns.
- Data policies which stipulate how we keep confidential information secure.
- A curriculum that is threaded throughout other curriculums and embedded in the day-to-day lives of our pupils.
- Training for staff and governors which is relevant to their needs and ultimately positively impacts on the pupils.
- Our online safety policy (part of our safeguarding policy) clearly states how monitoring of online safety is undertaken and any incidents/infringements to it are dealt with.
- Scheduled pupil voice sessions and learning walks steer changes and inform training needs.
- Filtering and monitoring systems for all our online access.

Health and Safety

The school takes very seriously and is aware of the health and safety issues surrounding children's use of ICT. We ensure that pupils have a safe environment in which to learn. We ensure effective filters are in place to safeguard pupils. As such we ensure that:

- All fixed and portable appliance in school are tested by a LA approved contractor regularly.
- Damaged equipment is reported and will be either arranged for repair or disposed of.
- E-safety is discretely taught each term by class teachers and through assemblies.
- Children learn about rights and responsibilities when using the internet.