Maryport Church Of England Primary School
Computing Policy

Introduction

The use of computers and computer systems is an integral part of the National Curriculum and knowing how they work is a key life skill. In an increasingly digital world there now exists a wealth of software, tools and technologies that can be used to communicate, collaborate, express ideas and create digital content. At Maryport Church of England Primary School we recognise that pupils are entitled to a broad and balanced computing education with a structured, progressive, approach to the learning how computer systems work, the use of IT and the skills necessary to become digitally literate and participate fully in the modern world.

The purpose of this policy is to state how the school intends to make this provision.

2. Aims

The school's aims are to:

- Provide a broad, balanced, challenging and enjoyable curriculum for all pupils.
- Develop pupil's computational thinking skills that will benefit them throughout their lives
- Meet the requirements of the national curriculum programmes of study for Computing at Key Stage 1 and 2
- To respond to new developments in technology
- To equip pupils with the confidence and skills to use digital tools and technologies throughout their lives.
- To enhance and enrich learning in other areas of the curriculum using IT and computing.
- To develop the understanding of how to use computers and digital tools safely and responsibly

The National Curriculum for Computing aims to ensure that all pupils:

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

3. Rationale

The school believes that IT, computer science and digital literacy:

- are essential life skills necessary to fully participate in the modern digital world.
- allows children to become creators of digital content rather than simply consumers of it.
- provides access to a rich and varied source of information and content.
- communicates and presents information in new ways, which helps pupils understand, access and use it more readily.
- can motivate and enthuse pupils.
- offers opportunities for communication and collaboration through group working
- has the flexibility to meet the individual needs and abilities of each pupil.

4. LEGISLATION AND GUIDANCE

This policy reflects the requirements of the National Curriculum programmes of study, which all maintained schools in England must teach. It also reflects requirements for inclusion and equality as set out in the Special Educational Needs and Disability Code of Practice 2014 and Equality Act 2010, and refers to curriculum-related expectations of governing boards set out in the Department for Education's Governance Handbook. In addition, this policy acknowledges the requirements for promoting the learning and development of children set out in the Early Years Foundation Stage (EYFS) statutory framework.

LEADERS OF LEARNING

Leaders of Learning in close liaison with the Senior Leadership Team (SLT) will ensure that the school curriculum is implemented in accordance with this policy by:

- Monitoring in line with the school's Monitoring and Assessment Timetable.
- Attending and disseminating relevant continuing professional development (CPD) courses.
- Devising and implementing a subject specific action plan in line with the school's SDP.
- Sharing effective practice.
- Supporting staff, including Newly Qualified Teachers (NQTs).
- Raising the profile of and championing their subject within school and the wider school community.
- Analysis of data.

INTENT, IMPLEMENTATION AND IMPACT

INTENT

At Maryport Church of England Primary 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.We want our pupils to understand that there is always a choice with using technology and as a school we utilise technology (especially social media) to model positive use. We recognise that the best prevention for a lot of issues we currently see with technology/social media is through education. Children will be exposed to different strands of E-safety across their school year. These will be developed in further detail as they move through school.

We recognise that technology can allow pupils to share their learning in creative ways.We also understand the accessibility opportunities technology can provide for our pupils. Our knowledge rich curriculum has to be balanced with the opportunity for pupils to apply their knowledge creatively which will in turn help our pupils become skilful computer scientists.

We encourage staff to try and embed computing across the whole curriculum to make learning creative and accessible. It is important in the foundation stage to give children a broad, play-based experience of IT and computing in a range of contexts, including off-computer activities and outdoor play. Computing is not just about computers. Early years learning environments should feature IT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities such as 'programming' each other using directional language to find toys/objects, creating artwork using digital drawing tools and controlling programmable toys. We want our pupils to be fluent with a range of tools to best express their understanding and hope by Upper Key Stage 2, children have the independence and confidence to choose the best tool to fulfil the task and challenge set by teachers.

7. IMPLEMENTATION

At Maryport Church of England Primary School the Computing Curriculum is designed in a way that allows pupils to transfer key knowledge to long-term memory; it is sequenced so that new knowledge and skills build on what has been taught before and towards defined end points. Computing lessons have weekly timetabled slots where classes have the access to the ICT suite. Children also have access to 1:2 iPads and 1:1 iPads in upper Ks2 to support them with their learning both in computing lessons and as cross curricular tools.

Our progressive curriculum builds on previous learning from prior years and deepens the learners understanding of the three strands of computing - information technology, computer science and digital literacy.

Staff use a range of digital resources and apps within their computing lessons and to support their cross curricular subjects. 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.

We ensure that :

- Teachers have expert knowledge of the computing lessons they teach
- Teachers present key concepts clearly and invite appropriate discussions
- Teachers check pupils' understanding effectively, identifying and correcting misunderstandings Teachers ensure that pupils embed key concepts in their long-term memory and apply them fluently
- Teachers enable pupils to transfer key knowledge to long-term memory, sequence the learning and ensure that it is building towards the defined end points
- Teachers use assessment to check pupils' understanding
- Teachers use assessment to help pupils embed and use knowledge fluently, develop their understanding, and not simply memorise disconnected facts

PLANNING

Lessons are planned using the National Curriculum and the Kapow and Teach Computing schemes of work. All year groups cover a two units of programming over the year, alongside covering units on information technology, digital literacy and computer science. The units are carefully planned out so that children can progress on their learning each year. E-Safety lessons are planned using Project Evolve. Each half term a different strand of E-Safety is focused on. This is a whole school focus.

Lesson plans for main sections of the curriculum (e.g. coding) are also available for teachers to use and adapt as necessary for their class. A minority of children will have particular teaching and learning requirements which go beyond the provision for that age range and if not addressed, could create barriers to learning. This could include G&T children, those with SEN or those who have EAL. Teachers must take account of these requirements and plan, where necessary, to support individuals or groups of pupils to enable them to participate effectively in the curriculum and assessment activities. During any teaching activities, teachers should bear in mind that special arrangements could be made available to support individual pupils. These children should be identified and discussed at pupil progress meetings to ensure that appropriate provisions and/or interventions are effected.

DIFFERENTIATION

Teachers and Teaching Assistants consciously and strategically plan the teaching and activities across the ability range whilst consistently monitoring progress. Intervention at the point of learning ensures the pupils are learning more precisely and are continually motivated and make more progress.

SPEAKING AND LISTENING

Teachers and teaching assistants are consciously and strategically emphasising speaking and listening through generating new vocabulary, explicit feedback, modelling, para-phrasing, encouraging extended responses, partner working and active listening. As a result, pupils rapidly become more articulate and confident in speaking, expanding their vocabulary and become more socially responsive.

HIGHER LEVEL/TECHNICAL VOCABULARY

Teachers and teaching assistants deliberately use higher level and technical vocabulary whilst ensure pupils understand the conceptions involved. As a result, students are more able to understand the curriculum content, extend their vocabulary and are more articulate in discussion.

QUESTIONING

Teachers and Teaching Assistants carefully and responsibly utilise a range of questioning techniques and tactics e.g. wait time, are deliberately democratic, provide positive and concrete feedback, require more explanation, put the onus on students individually and collectively.

MARKING AND FEEDBACK

Teachers regularly assess progress through observations and evidence. Key objectives to be assessed are taken from the National Curriculum to assess computing each term. The school uses the Kapow I can statements as a guide.
Each pupil's attainment is then recorded each half term. Assessing computing is an integral part of teaching & learning and key to good practice.

Assessment should be process orientated - reviewing the way that techniques and skills are applied purposefully by pupils to demonstrate their understanding of computing concepts. As assessment is part of the learning process, it is essential that pupils are closely involved. Assessment can be broken down into;

• Formative assessments are carried out during and following short focused tasks and activities. They provide pupils and teaching staff the opportunity to reflect on their learning in the context of the agreed success criteria. This feeds into planning for the next lesson or activity.

- Summative assessment should review pupils' ability and provide a best fit 'level'. Independent tasks provide a number of opportunities and scope for pupils to demonstrate their capability throughout the term. There should be an opportunity for pupil review and identification of next steps.
- Summative assessment should be recorded for all pupils – showing whether the pupils have met, exceeded or not achieved the learning objectives. We assess the children's work in computing by making informal judgments as we observe the children during lessons. Once the children complete a unit of work, we make a summary judgment of the work for each pupil as to whether they have yet to obtain, obtained or exceeded the expectations of the unit. The children's work is saved on the school server. Other work to support the judgement is sent to the Computing Seesaw account which is managed by the Computing subject lead.

LITERACY AND MATHS

Literacy and Maths are used to promote deeper subject specific learning and allow pupils greater application of skills especially in terms of problem solving.

CREATIVITY AND CRITICAL THINKING

Children should be given opportunity to be creative through all areas of Computing. At Maryport CE Primary, we can support children's thinking and help them to make connections by showing genuine interest, offering encouragement, clarifying ideas and asking open questions. Children can access resources and apps freely and are allowed to move them around the classroom to extend their learning.

INCLUSION

Teachers set high expectations for all pupils. They will use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- More able pupils
- Pupils with low prior attainment
- - Pupils from disadvantaged backgrounds
- - Pupils with SEN - Pupils with English as an additional language (EAL). Teachers will plan lessons so that pupils with Special Education Needs and Disabilities (SEND) can study every National Curriculum subject, wherever possible, and ensure that there are no barriers to every pupil achieving. Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in all subjects.

MONITORING ARRANGEMENTS

Governors monitor coverage of National Curriculum subjects and compliance with other statutory requirements through: ? The Board of Governors Curriculum Committee is responsible for monitoring the way the school curriculum is implemented – agenda led and monitored to address each subject area including Computing. ? Named Governors with responsibility for Computing - governors liaise with the subject leaders and monitor closely the way the school teaches Computing. ? The head teacher is responsible for the day-to-day organisation of the Computing curriculum. ? Leaders of Learning monitor the way that their subject is taught throughout the school through: - Lesson Observations; - Learning Walks; - Pupil Voice; - Analysis of data; - Planning Scrutinies; 7 | P a g e - Work Scrutinies. In addition, Leaders of Learning have responsibility for monitoring the way in which resources are stored and managed. Leaders of Learning report back to the Curriculum Subcommittee verbally and through written formats, staff and SLT reporting on standards and monitoring activities. 10. 1

IMPACT OF THE SCHOOL'S 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. The school implements a broad balanced and enriched Computing curriculum as a result:

- Pupils develop detailed knowledge and skills across the Computing curriculum and, as a result, achieve well. This is reflected in results from national test which exceed government expectations. Precision in planning, we know that the Computing curriculum is covered in the required depth exemplified within the statutory and non-statutory guidance of the national curriculum.
- Pupils have the opportunities to regularly revisit concepts and link ideas together.
- High quality programs are used; pupils have a real love of learning.

- Pupils have access to a range of resources.
- Development of the whole child and gaining a sense of awe and wonder, pupils are happy engaged learners eager to share their learning with adults, family and class peers.
- Strong emphasis on revision of oracy and basic skills pupils' standards are high and pupils are exceptionally well prepared for their next stage of learning.
- High focus on developing specific subject knowledge, as well as the skills in each subject, pupil's progression through the Key Stages is ensured and readily exemplified; through display and case studies, performance and demonstrable achievements.
- Focus on providing opportunities of working with children beyond their own school, sex, religion and experience pupils are able to mix, collaborate and work appreciate the views of others.
- A curriculum focusing on technology in the wider world: pupils to leave Maryport CE Primary School able to integrate into modern British Society.
- Active engagement with parents, the curriculum goes beyond the classroom and promotes home study and research, parents are engaged and have ownership of the school and see it as part of the community.
- The computing curriculum being fully inclusive for all, pupils have time and opportunities to work alongside their class peers who may have learning and physical needs, this creates a strong sense of care and inclusivity.
- Lessons are planned around pupil's interests and questions, pupils are actively engaged in their own learning and eager to investigate beyond the classroom.