

# Stradbroke CE Primary School

## Computing Curriculum Statement



### **Aims and objectives**

Technology is an integral part of everyday life. The aim of teaching computing is to shape children for a future in an environment which is shaped by technology. Computing teaches children to use computational thinking and creativity to understand and change the world.

The aims of teaching computing in our school have been written with reference to the aims of the National Curriculum and are separated into three strands:

- Computer Science – children are taught the principles of information and computation, how digital systems work and how to apply this knowledge to programming.
- Information technology – creating programs and systems with a range of content.
- Digital Literacy – using technology, expressing themselves and developing their own ideas as active participants in a digital world. Online safety is also included within this strand and is incorporated into teaching throughout the year.

Our aims are linked to the National Curriculum:

- To enable children to understand and apply the fundamental principles and concepts of computer science including abstraction, logic, algorithms and data representation;
- To enable children to analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve problems;
- To enable children to evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems;
- To ensure that children are responsible, competent, confident and creative users of information and communication technology;
- To use computing as a tool to enhance learning throughout the curriculum.

### **Computing Curriculum Planning**

We use the National Curriculum as the basis for our computing planning, making adjustments to relate teaching and learning to our local context. The objectives are mapped across the year groups and class long term plans ensure coverage and breadth in our mixed year group classes each year. Teachers also use the skills progression to ensure development of skills as the children progress through the school, building upon prior learning and sequencing of teaching.

### **Subject Content**

#### **Early Years Foundation Stage (EYFS)**

We teach computing to reception children as an integral part of the topic work covered during the year and we make links to the objectives set out in the Early Learning Goals. Computing makes a significant contribution to the ELG objectives of developing a child's understanding of the world, particularly different uses of technology both in school and at home and selecting and using technology for particular purposes.

## **Key Stage 1 and 2**

We organise our curriculum into the three strands outlined in the National Curriculum: Digital Literacy (including Online Safety), Information Technology and Computer Science.

We have plotted the progression of knowledge and skills within computing for each of the year groups. Key concepts and skills are revisited throughout the key stages to ensure that children develop a secure understanding and build upon skills learnt.

## **Teaching & Learning Style**

Computing teaching focuses on enabling the children to thrive in a technological world. We aim to use cross-curricular links (eg. with Maths, English, History and Geography) in order to inspire and engage children in their computing learning, as well as developing their skills to keep themselves safe online and be aware of potential risks. We believe that keeping up to date with changes in technology is important to ensure relevant and appropriate teaching. We believe in whole-class teaching methods to encourage discussion, questioning and practical learning activities.

We recognise that there are children of different abilities and we provide suitable learning opportunities for all children by:

- Setting common tasks which are open-ended and can have a variety of responses or outcomes.
- Setting tasks of varying difficulty, enabling all children to work to their full potential.
- Using different resources to provide varying levels of challenge, including programs.
- Using teaching assistants to support the work of individual children or groups of children.

## **Cross Curricular Links and Wider Learning Opportunities**

Where relevant and appropriate, meaningful links are created between computing and other curriculum subjects. Encouraging children to make these links strengthens their understanding by enabling them to consider different contexts.

Wider learning opportunities are used thoughtfully in computing to help bring the subject to life or to make learning clearer for our children.

## **Personal, Social and Health Education (PSHE) and Citizenship**

Computing holds close links with developing children's PSHE. Learning about how to use technology safely and responsibly promotes the importance of children evaluating their own online presence and the effects of their behaviour online. Communication and interaction with others are skills that children use on a daily basis and therefore teaching them the effectiveness of these skills is crucial in terms of their social development.

## **Spiritual, Moral, Social and Cultural Development**

When teaching computing, we contribute to the children's spiritual development where possible. Online communication tools allow children to engage with so many more people, so teaching them to do this in a safe and responsible manner is crucial in order for our children to remain safe. Encouraging children to discuss and debate possible scenarios allows them to consider moral outcomes.

## **Equal Opportunities**

We will ensure that all children are provided with the same learning opportunities whatever their social class, gender, culture, race, disability or special educational needs (SEN). As a result, we hope to enable all children to develop a positive attitude towards others. All pupils have equal access to computing lessons. Resources for SEN children and gifted & talented will be made available to support and challenge appropriately.

## **Assessment**

Teachers assess children's work in computing by making assessments as they observe them working during lessons. They record the progress that children make by assessing the children's work against the aims of the national curriculum and learning objectives within the lesson. Teachers will use a range of tools to assess children including discussion and questioning, observations, quizzes and recaps and, where appropriate, summative assessments.

### **Resources**

There are sufficient resources for all computing teaching units in the school, including iPads and computers. A selection of websites and programs are also used to support teaching and learning across the different strands. Whole school days linked to Online Safety are organised to ensure children understand the importance of staying safe online.

### **Monitoring and Review**

The computing subject lead is responsible for monitoring the standard of children's work, the quality of teaching and supporting colleagues in the teaching of computing. The Online Safety Lead is responsible for remaining up to date with regards to online safety changes and updates and sharing these with staff.

This guidance is monitored by all teaching staff with the leadership team. It will be reviewed when changes are made to the curriculum.