Computing Policy

2017-18

Our Light Shines Always

We want the best teaching, the best opportunities and the best support and encouragement for every child. We are a friendly, happy, Catholic school, where everyone is valued for their individuality and special gifts.

Named personnel with designated responsibility for: Computing

Academic year	Designated Lead	Chair of Governors	Review Dates
2017-18	Charlotte Compton	Christine Baker	January 2018

Safeguarding Statement:

At Our Lady & St. Anne's RC Primary School we respect and value all children and are committed to providing a caring, friendly and safe environment for all our pupils so they can learn, in a relaxed and secure atmosphere. We believe every pupil should be able to participate in all school activities in an enjoyable and safe environment and be protected from harm. This is the responsibility of every adult employed by, or invited to deliver services at Our Lady & St Anne's RC Primary School. We recognise our responsibility to safeguard all who access school and promote the welfare of all our pupils by protecting them from physical, sexual and emotional abuse, neglect and bullying.

Aims and Purposes

The Computing curriculum should offer opportunities for our children to:

- Develop their understanding of the fundamental principles and concepts of computer science.
- Develop their skills in using hardware and software to manipulate information in their process of problem solving, recording and expressive work.
- Develop a high quality computing education which equips them to understand and change the world through logical thinking and creativity.
- Develop their understanding of how digital systems work and to become digitally literate individuals.
- Explore their attitudes towards ICT, its value for themselves, others and society, and their awareness of its advantages and limitations.

Computer science

Our children should acquire and develop the skills associated with computer science in order to:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selection and repetition in programs; work with variables and various forms of input and output.
- Use logical reasoning to explain how some algorithims work and detect and correct errors in algorithims and programs.
- Understand computer networks including the internet; how they can provide multiple services such as the world wide web.

I.T.

Our children should:

- Acquire and develop skills associated with Information technology in order to:

- Use search technologies effectively.

- Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

- Acquire and refine the techniques e.g. saving, copying, checking the accuracy of input and output needed to use ICT;

- Practise mathematical skills e.g. ordering numbers including negative numbers, measuring and calculating to an appropriate number of decimal places, drawing and interpreting graphs and bar charts in real contexts;

- Learn why numerical and mathematical skills are useful and helpful to understanding;
- Develop the skills of collecting first hand data, analysing and evaluating it, making inferences or predictions and testing them, drawing and presenting conclusions, and use all these in their work with ICT.

Digital literacy

Our children should:

 Acquire and develop their skills in digital literacy in order to:

- Understand the opportunities networks offer for communication and collaboration.

- Be discerning in evaluating and presenting data and information.

- Be able to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Language and Communication

Our children should:

- Develop language skills e.g. in systematic writing and in presenting their own ideas;
- Use the appropriate technical vocabulary;
- Read non-fiction and extract information from sources such as reference books or CD-ROMs.

Values and Attitudes

Our children should:

- Work with others, listening to their ideas and expertise and treating these with respect e.g.
  cooperating and collaborating when using a computer as part of a group to ensure that all contribute.
- Acknowledge the ownership of ideas and recognise the value of information held on IT systems e.g. recognising how much work has gone into producing a computer file, and how easily careless access can destroy it.
- Be aware of the security of their own and other people's information in electronic form e.g. recognise that they should ask before reading or copying from other's work.

- Recognise the importance of printed output e.g. keeping examples of work safe so that source files may be easily identified when work is developed at a later date.
- Be creative and persistent e.g. when assembling a computer file from a large amount of source material.
- Consider the origin and quality of information and its fitness for purpose.
- Evaluate critically their own and others' use of ICT.
- Recognise the strengths and limitations of ICT and its users e.g. recognising that a work processor is an effective and efficient tool to help writing, but, on occasion, handwritten text is more appropriate.
- Develop knowledge and understanding of important ideas, processes and skills and relate these to everyday experiences.
- Learn about ways of thinking and finding out about and communicating ideas.
- Explore values and attitudes through ICT.

Features of Progression

To ensure children make progress in computing, teaching should promote opportunities for children, as they move through the Key Stage, to progress:

- From using single forms of information to combining different types of information, matching the form of presentation to the audience and what is being communicated;
- From personal use of ICT to using ICT to meet the needs of, and communicate with, others;
- From using ICT to replicate and enrich what could be done without ICT e.g. playing a word game or drawing a picture to using ICT for purposes that could not have been envisaged without it such as exploring 'what if' situations and modelling new ones;
- From using everyday language to describe work with ICT to increasingly precise use of technical vocabulary and ways of recording;
- From personal use of ICT in a few areas to understanding a wider range of uses of ICT and the consequences of its use for themselves, their work and others;
- From using ICT to address a single task e.g. writing a story to addressing more complex issues, and balancing conflicting needs and criteria.
- From organising information as separate items e.g. single graphic image to organising information in sequences and more complicated, interactive, structures e.g. a multimedia presentation or a database;
- From initial exploration of ideas and patterns to more systematic use of ICT for analysis and design.

Building on Children's Earlier Experiences

Most of our children will have used a computer either at home or in their nursery and infant classes.
The differing background children have in computing capability offer a significant challenge to us at Our Lady & St Anne's. Children who have access to IT outside school often have greater skills in handling hardware and software. However, they may not have the full range of IT capability expected in the programme of study. By observing children's developing IT capability, we will be able to ascertain what tasks and expectations would best support their learning.