**Belvedere Junior School**

**Computing Rationale**

**We are computer scientists**

We will provide opportunities to understand, apply and evaluate principles and concepts of computing reasoning, algorithms and data representation. We will offer opportunities to analyse problems and communicate ideas by developing skills and use of digital devices to create safe, responsible, competent, confident and creative users of information and communication technology.

At Belevdere Junior School, we teach the full National Curriculum. Curriculum coverage and progression are planned through a series of different units which build upon each other year on year. Children are able to apply and enhance their skills during their weekly computing sessions.

'The new national curriculum for computing has been developed to equip young people in England with the foundational skills, knowledge and understanding of computing they will need for the rest of their lives. Through the new programme of study for computing, they will learn how computers and computer systems work, they will design and build programs, develop their ideas using technology and create a range of content.'

This is underpinned by the key aim of producing learners who are confident and effective users of a wide range of both software and hardware.

As children work through the scheme of work their progress is recorded against short-focused tasks where appropriate assessments are made. By the end of each unit pupils are expected to know, apply and understand the matters, skills and processes outlined in the relevant programme of study. These assessments aim to support teaching and learning. We will keep children's work in a Computing folder which will follow the children through the school. The folders for each year group can be accessed on the shared network and will be readily available for monitoring by the subject leader and staff to ensure differentiation, progression of skills and achievement at individual levels.

There is an opportunity to make rapid progress in this area at Belvedere Junior School. The school has many iPads for children to use. We also have several laptops and blue bots. Teachers are equipped with Clever Touch boards for use during lessons as a teaching tool to enhance learning for children. All staff receive training to enable them to use different technology in the most effective way for interactive learning.

## Key Stage 2

By the end of Key Stage 2 children should be able 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 simple algorithms work and to detect and correct errors in algorithms and programs.

Understand computer networks including the internet; how they provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration.

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour.

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.