ST. ALOYSIUS' CATHOLIC JUNIOR SCHOOL

COMPUTING AND INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT)/ POLICY

OUR MISSION STATEMENT

Through Jesus, we learn, love and grow together.

RATIONALE

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. 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.

Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

National Curriculum 2014

GENERAL AIMS:

That we will support our pupils and staff to:

- Ensure a broad and balanced computing curriculum is provided for all children.
- Meet the national curriculum requirements for Computing.
- Enjoy using ICT and tackle all applications with confidence and a sense of achievement.
- Develop practical skills in the use of Computing and the ability to apply these skills to the solving of relevant and worthwhile problems.
- To enrich and extend computing in both an independent manner and collaboratively through other subjects.
- To use computing technology responsibly, safely and competently to become digitally literate adults.
- To help support those children with SEN to increase their independence, developing their interests and abilities.

THE SCHOOL'S APPROACH TO DIGITAL LEARNING.

There are two main elements to digital learning at St Aloysius:

1. **Teaching the Programme of Study for Computing in line with the National Curriculum.**
2. **Cross-curricular learning by using ICT to enhance, enrich and deepen the learning process across the curriculum**

1. Teaching the Programme of Study for Computing in line with the National Curriculum.

In line with the new National Curriculum, Computing is taught discretely and systematically as a subject which allows for targeted development of basic skills; it is also taught through cross-curricular links which use and apply the developing subject knowledge, skills and understanding. Each year group is taught three areas in Computing - Computer Science (coding), IT systems and

Digital Literacy. Targeted units can be taught at the South Camden City Learning Centre (CLC) and are timetabled in advance. These units are targeted because of their specialist software as well as to maximise the expertise of the staff at the CLC. Other units are taught using the school Chrome Books. Each child has access to a specific Chrome Book and is taught by teachers who have had training in how to effectively deliver the areas of the curriculum.

2. Cross-curricular learning by using ICT to enhance, enrich and deepen the learning process across the curriculum.

Good cross-curricular planning for whole class and group teaching in all subject areas allows all students to integrate varying ICT skills across the curriculum. This allows a well rounded learning approach to ICT engendering an ability to manipulate these skills in the wider world.

Children are encouraged to use a wider range of ICT tools and information sources to support their work in other subjects. To facilitate this, the school continues to subscribe to a number of online providers with activities relating to Mathematics, English, Science and many of the foundation subjects. These are constantly updated as new resources supersede those currently in use. During the majority of lessons the children should be given opportunities to use these online resources to support, develop and extend their learning.

CHILDREN'S USE OF COMPUTERS

Teachers are encouraged to provide a wide range of opportunities for children to work on computers where appropriate and to build this into all lesson planning. Children are able to use the three classroom computers as well as whole class learning on the 30 Chrome Books which are timetabled in advance.

HOMEWORK AND PARENTS

Parents are encouraged to make use of home computers to support project work in other subjects and in the absence of home computers, develop their child's awareness of ICT in today's society through visits to libraries, the City Learning Centre, computerised cataloguing systems and use of home video equipment. We have a whole school use of 'Mathletics', incorporating daily learning targets and weekly online homework.

RESOURCES

Classroom resources include:

- an interactive whiteboard with broadband connection, scanner, and black and white printer all connected to a teacher computer.
- at least three student computers in each classroom (with broadband internet connection) linked to the class printer, with headphones available,
- relevant software CD-ROMs to support topics,
- a set of calculators in each classroom,
- a Flip camera,
- a basic digital camera.

Central resources (in the storeroom and the safe) include:

- A video recorder and digital camera
- Master copies of all software in use throughout the school,
- Software / CD-ROMs likely to be used at all levels but infrequently by any one class,
- Kits of hardware and associated software for control and measurement activities,

- Spare printer cartridges,
- 30 Chrome Books and Charging unit

Children are encouraged to turn off or shut down their computer when they have finished working. Responsibility for this is given to the two 'Green Team' members in each class.

EQUAL OPPORTUNITIES

- It is the policy of the school to ensure that all pupils have an equal entitlement to resources, time and support in ICT, irrespective of gender, race, or ability.
- We are very conscious of inequalities in access and monitor school computer use carefully to ensure that children who do not have computers are home are given more opportunity to use them in school.
- Groups working at the computer will be mixed sex and / or ability wherever possible. Careful monitoring of these groups will be undertaken to ensure that no one child dominates the use of the equipment.

SPECIAL NEEDS

Pupils with special needs have the same ICT entitlement as all other pupils and are offered the same curriculum. However, in addition, particular applications of ICT are used for:

- pupils with difficulties in learning, who need to be motivated to practice basic skills regularly and intensively, benefiting from using programs where skills practice is set in the context of a motivating game;
- certain pupils with physical disabilities or communication impairments who have their own specially adapted machines for use in communication and across the curriculum;
- pupils of high ability to be extended through the use of programs offering challenge and opportunities for investigation, advanced desktop publishing or use of the internet.

HEALTH AND SAFETY

All staff and pupils should take care with:

- Logging on and shutting down computers correctly,
- General electrical safety: the actual connection and disconnection of power sources must be carried out only by a teacher/teaching assistant,
- Moving equipment,
- The location of equipment away from hazards such as sources of water,
- Location of computer screens so that bright light is not reflected on the screen.

ASSESSMENT, RECORDING, REPORTING AND MONITORING

- Children's work is stored in the shared area of the school network in individual files.
- Teachers may wish to make a note of children's achievement when their progress differs markedly from that expected within the units.
- We monitor according to the school's Monitoring, Evaluation and Review Cycle.

E-SAFETY AND ACCEPTABLE USE

- Children are reminded of the importance of being safe online at the start of each academic year and take part in several e-safety lessons.
- Children are reminded about the importance of keeping private information to themselves and what to do should they feel unsafe online.
- Any work or activity on the Internet must be directly related to schoolwork. Private use of the Internet in school is strictly forbidden.

- Pupils will treat others with respect at all times and will not undertake any actions that may bring the school into disrepute.

Natalie Petzal
Digital Learning Leader
January 2016.

MONITORING THE POLICY.

The Head Teacher and Senior Leadership Team will monitor the policy by regular reviews and observations. The Head Teacher must publicise the policy and bring it to the attention of pupils, parents and staff at least once a year.
This policy was updated by the Digital Learning Leader

This policy was agreed in Spring Term- 28th January 2016
Review and update by Spring 2020

Signed……....
Chair of SEND & Curriculum Committee.

SCHEME OF WORK

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	Purple Mash: 2 create creative tools Select, use and combine a variety of software (including internet services) 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	Espresso Coding Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequencing, selection, and repetition in programs; work with variables and various forms of input and output	CLC: We do Lego. Use sequencing, selection, and repetition in programs; work with variables and various forms of input and output I pad apps – algorithms. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	"We are Network Engineers" sponsored by Camden. Book through the CLC. Understand computer networks including the internet; how they can 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; recognise	Scratch Junior Design, write and debug 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 some simple algorithms work and to	Using PowerPoint Select, use and combine a variety of software (including internet services) 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

				acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	detect and correct errors in algorithms and programs	
Year 4	CLC: I pads – make Henry VIII videos Select, use and combine a variety of software (including internet services) 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	Espresso Coding Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequencing, selection, and repetition in programs; work with variables and various forms of input and output	CLC: We do Lego. Use sequencing, selection, and repetition in programs; work with variables and various forms of input and output I pad apps – algorithms. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in		Scratch Junior Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use logical reasoning to	Purple Mash: 2 investigate (spreadsheets) Select, use and combine a variety of software (including internet services) 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

	presenting data and information		algorithms and programs		explain how some simple algorithms work and to detect and correct errors in algorithms and programs	and presenting data and information
Year 5	Purple Mash: 2 create creative tools (link to BFG) Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals,	Espresso Coding Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequencing, selection, and repetition in programs; work	CLC: Mindstorms ev3 Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs		Scratch – can link with geometry in Mathematics Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into	Purple Mash: 2 investigate (spreadsheets) Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including

	including collecting, analysing, evaluating and presenting data and information	with variables and various forms of input and output			smaller parts Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	collecting, analysing, evaluating and presenting data and information
Year 6	Purple Mash: 2 create creative tools/ J2e Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and	Espresso Coding Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	CLC: Mindstorms ev3 Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs		Scratch – can link with geometry in Mathematics Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems;	CLC: Code Kingdom Using java script and text based language. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical

	content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	Use sequencing, selection, and repetition in programs; work with variables and various forms of input and output			solve problems by decomposing them into smaller parts Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	systems; solve problems by decomposing them into smaller parts

Computer Science (coding)
IT systems
Digital Literacy

Key stage 2

Pupils should be taught 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 can 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
- select, use and combine a variety of software (including internet services) 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
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.