MICKLEOVER PRIMARY SCHOOL

Name of Policy: Computing

Date of Policy: May 2020

Member of Staff responsible: Mrs Erica Clennell

Review date: April 2020

Signature: _____ **Chair of Governors**

Date Approved: _____

At Mickleover Primary School

We are:

Motivated to learn

Proud of our achievements

Successful and skilled for life

COMPUTING POLICY

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

AIMS

At Mickleover Primary School we believe that computing is a fundamental aspect of the modern world. Computers are now part of everyday life. For most of us, technology is essential to our lives, at home and at work. We aim to equip children with the skills and abilities necessary to thrive outside of school and throughout life. We believe that computing should:

- Motivate and enthuse pupils
- Encourage the development of problem solving skills
- Provide opportunities to encourage computational thinking
- Prepare children for their futures by being confident and competent to use a range of devices and software programs

We strive to achieve this by:

- Providing a relevant, challenging and enjoyable curriculum for computing for all pupils
- Meeting the requirements of the National Curriculum programmes for study for Computing
- Using computing as a tool to enhance learning across the curriculum
- Responding to new developments in technology
- Equipping pupils with the confidence and capability to use computing skills and various devices throughout their later life
- Using computing to enhance learning in other areas of the curriculum
- Developing the understanding of how to use computing safely and responsibly

TEACHING & LEARNING

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
- Can evaluate and apply information technology analytically to solve problems
- Are responsible, competent, confident and creative user of information and communication technology

Early Years

It is important in the foundation stage to give children a broad, play-based experience of computing in a range of contexts, including outdoor play; it is not just about computers. At Mickleover Primary we aim to create learning environments featuring computer scenarios based on experience in the real world, such as role play. Children gain confidence, control and language skills through opportunities to 'paint' on a device or by programming a toy. They will also gain solid foundation skills in loggin on and off, opening programmes and developing effective mouse skills.

Key Stage 1

By the end of Key Stage 1 pupils should be taught to:

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Key Stage 2

- 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

PLANNING

We use the National Curriculum to ensure that we are teaching the 3 strands of computing: computer science, digital literacy and information technology. Underpinning all computing learning will be e-safety. The school follows the South West Grid for Learning Digital Literacy scheme. Where possible a cross curricular context will form the basis for the learning, however some computing learning remains discrete. The Teaching and Learning of computing will be through:

- individual work
- paired work
- small group work
- class / large group work.

RESOURCES

Within school there is a variety of devices to support the teaching of computing.

Devices

- Easi-teach microphones
- Digital cameras
- Microscopes
- Bee-bots
- Pro-bots
- 6 ipads
- 2 Galaxy tablets
- Netbooks (stored in Y5 and Y6 classrooms)
- All classrooms / teachers have a laptop
- All classrooms are fitted with an interactive whiteboard
- All classroom have a class camera
- Each year group has 6 class laptops

Software

- Smart Notebook
- Microsoft Office software
- 2 Simple software
- Scratch
- Kodu

The school subscribes to a VLE – Learning Platform. Each pupil within the school has a Learning Platform account which they log into. This platform allows learning to continue beyond the classroom and be shared between school and home.

TIME ALLOCATION

Each class within the school has an hour session allocated to them within the Computer suite on a weekly basis. The timetable also allows for further sessions should teachers require them. Netbooks are available within Y5 and Y6 classrooms on a shared basis each day. 6 ipads, cameras, bee-bots and pro-bots are available for signing out for use during classroom sessions. Year group laptops are used to both support the teaching of Computing and as a cross curricular resource.

TECHNICAL SUPPORT

Technical support is provided by an outside agency (LeadIt Services) on a weekly basis (one morning and one afternoon a week). The technicians also advise on strategic development and management of resources and can provide training in software applications.

SECURITY AND MAINTENANCE

It is the responsibility of all staff to maintain and secure the equipment in school.

Security

- The site-manager ensures that devices are security marked
- Netbooks are stored in a locked trolley in each classroom
- Portable devices are stored in the Computer suite when not in use. The Computer suite is locked at the end of each school day

- The use of computing equipment will be in line with the school's Staff Code of Conduct for ICT.
- The E-safety policy will be followed in order to keep children and adults safe online
- Data protection guidelines will be followed

Maintenance

- Equipment should be handled with care
- Faults or problems should be reported to the IT technical team (LeadIt Services) via the log e-mail (support@leaditservices.co.uk)
- A technician will be on site one morning and one afternoon a week to manage network problems and issues.
- All equipment must be returned after use and properly put away
- The IT technical team (LeadIt Services) keep an up-to-date inventory of equipment and the Site Manager PAT tests devices where applicable.

PROFESSIONAL DEVELOPMENT

- The coordinators carry out skills audits to ensure that appropriate training is provided.
- Regular CPD training is undertaken through INSET, Twilights and staff meetings. This is to ensure that computing is being taught effectively to support learning
- All teaching staff, HLTA's and SEN TA's have access to a school laptop for use when teaching.

HEALTH AND SAFETY

Teachers will follow

- E-safety policy
- Staff Code of Conduct for ICT
- Data Protection protocols
- Staff Code of Conduct Policy

General health and safety issues regarding wires, plugs etc are addressed and overseen by the Site Manager

EQUAL OPPORTUNITIES

Mickleover Primary School is committed to providing a teaching environment which values, respects and challenges all children regardless of ability, race, gender, religion, social background, culture or disability.

In the context of the Computing curriculum this includes ensuring that children who do not have access to a computer and the internet at home, have additional access provided for them at school.

GIFTED AND TALENTED

Staff must ensure that there are adequate opportunities for Gifted and Talented children and these should be noted within planning where appropriate. The Computing and Gifted and Talented Coordinators should be informed. Pupils who are Gifted and Talented within Computing are offered the same curriculum as all other children. However they may work on activities at an extended level, using support staff and the Gifted and Talented Co-ordinator to give extra guidance where appropriate.

SPECIAL EDUCATIONAL NEEDS

Pupils are supported in a number of ways depending on their difficulties. This may include use of a Teaching Assistant, appropriately differentiated tasks, access to specialised equipment or software /apps. Specific areas of weakness may be targeted through an individual Provision Plan

ASSESSMENT

Assessment is an integral part of effective teaching and learning. Assessment systems have been updated in line with curriculum and assessment systems in school. Teachers assess children's work in Computing by making judgments against the learning objectives. Teachers keep informal records on pupils' progress and these are used to inform the pupil of his/her progress. Computing is included within the end of year school report to parents.

MONITORING AND REVIEW

The Headteacher and Computing coordinators will ensure that there is continuity and progression in Computing by

- monitoring the planning
- completing a scrutiny of children's work
- class swaps
- lesson observations.
- Pupil discussions

Computing is included in the school's curriculum monitoring cycle. The coordinators carry out the above and report back to the Senior Management Team, staff and governors on their findings.

THE ROLE OF THE COORDINATOR

The coordinator will:

- keep up to date with new initiatives and developments including attending local network meetings.
- encourage and support staff in their teaching of Computing
- identify what Computing support is needed by individual staff and organise INSET as appropriate
- ensure that resources are purchased, maintained and updated as necessary
- support the School Business Manager in overseeing and managing the technical support team and equipment maintenance
- monitor standards in teaching and learning and assessment
- ensure continuity and progression in Computing throughout the school
- manage the computing curriculum budget effectively

THIS POLICY IS LINKED TO THE FOLLOWING:

Safeguarding Policy
e-safety Policy
Staff Code of Conduct Policy
Data Protection protocols
Health and Safety Policy
Equal Opportunities Policy
SEND Policy
G & T Policy