INGLEBY MILL PRIMARY SCHOOL

POLICY FOR

Computing

AUTUMN 2023

Policy Statement for Computing

Computing is a core subject within the National Curriculum. This policy outlines the purpose, nature and management of the Computing, which is taught and learned in our school.

The school policy for Computing reflects the agreed views of all the staff and governors of the school. It was formulated as a result of a series of working party meetings led by the Computing co-ordinator in 2001 and the policy has been reviewed regularly, most recently in the Summer term of 2023.

1.   Rationale for Computing in the Primary School

Computing has become an increasingly important part of everyday life and has the potential to transform the lives of all involved in its use. Therefore each child within the school will have regular and meaningful access to the quality use of ICT to prepare them to be able to use its full range of facilities. Computing provides a means of enhancing and enriching the learning experience of children and can strengthen and support traditional forms of teaching and learning and extend the range of educational opportunities for children.

The teaching and learning of Computing in our school should be both motivating and stimulating. Children should develop both knowledge of the subject, skills and enjoyment for undertaking further work in Computing.

2.   Aims

The aims and purposes of teaching Computing at Foundation Stage and Key Stages 1 and 2, which underpin the National Curriculum programme of study are that Computing teaching should offer opportunities for children to:

- Develop Computing capability, including their knowledge and understanding of the importance of information and of how to select and prepare it;
- Develop their skills in using hardware and software to manipulate information in their processes of problem solving, recording and expressive work;
- Develop their ability to apply their Computing capability and to support their use of language and communication, and their learning in other areas;
- Explore their attitudes towards Computing, its value for themselves, others and society, and their awareness of its advantages and limitations;
- Develop an awareness of the use of Computing/computers in everyday life/workplace.

Knowledge and understanding

- Understand how Computing can be used to communicate and handle information, control and monitor events, and model real and imaginary situations.

Processes and skills

Children should:

- Acquire and develop the skills associated with using Computing to:

    i. Pass on ideas by communicating, presenting and exchanging information
    ii. Find things out and handle information
    iii. Make things happen by controlling and monitoring events
    iv. Try things out by modelling real and imaginary situations

- Acquire and refine the techniques e.g. saving, copying, checking the accuracy of input and output needed when using computing;
- understand apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- analyses problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- 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;
- Evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- Learn why numerical and mathematical skills are useful and helpful to understanding;
- Be responsible, competent, confident and creative users of information and communication technology

Language and Communication

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, internet, and learning platforms.

Values and Attitudes

Children should:

- Work with others, listening to their ideas and expertise and treating these with respect e.g. co-operating 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 computer 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. recognising that they should ask before reading or copying from others' work;
- Be creative and persistent e.g. when assembling a computer file from a large amount of sources material;
- Consider the origin and quality of information and its fitness for purpose;
- Evaluate critically their own and others' uses of computing;
- Recognise the strengths and limitations of technology and its users e.g. recognising that a word 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 computing.
- Have signed with intent to adhere to the School Internet policy.

Features of progression

To ensure children make progress in Computing, teaching should promote opportunities for children, as they move through Foundation Stage and Key Stages 1 and 2, 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 computing to using computing to meet the needs of, and communicate with, others;
- From using technology to replicate and enrich what could be done without it, e.g. playing a word game or drawing a picture to using computing for purposes that may not have been envisaged without it such as exploring 'what if' situations and modelling new ones;
- From using everyday language to describe work with technology to increasingly precise use of technical vocabulary and ways of recording;

- From personal use of computing in a few areas to understanding a wider range of uses of computing and the consequences of its use for themselves, their work and others;
- From using computing to address a single task e.g. writing a story, to addressing more complex issues and balancing conflicting needs and criteria e.g. writing an account of an event for the school magazine that fits in the space provided and communicates the relevant details to the anticipated audience;
- From organising information as separate items e.g. a 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 computing for analysis and design.
- So that work is clearly planned so that objectives can be evaluated/re-visited.

Building on children's earlier experiences

Many children will have used a computer either at home or in their nursery and reception classes. These experiences are likely to have included:

- Contact with, and discussion of, the technology in their everyday environment e.g. washing machines, televisions, videos, games consoles, hairdryers, remote control toys, traffic lights and cash registers/card machines, sat-nav technology
- Using toys that simulate real-life applications of technology e.g. telephones and cameras, computing based toys and games, keyboards that can save and play back tunes, sound-activated toys, robots and walking dolls; tape recorders etc.
- Talking about computers that they have used, how they made them work, what they used them for, and how they knew that those tools were computers;
- Developing eye and hand-coordination using a concept keyboard, mouse and other touch sensitive equipment;
- Knowing how to use the computer safely and sensibly e.g. not touching the plugs and switches and importance of why no drinks can be located near any computers.

The differing backgrounds children have in computing capability continue to offer a significant challenge to teachers. Children who have greater access to computing use outside school often have greater skills in handling hardware and software. However, they may not have the full range of computing capability expected in the programme of study. By observing children's developing computing capability, teachers will be able to ascertain what tasks and expectations would best support their learning.

3.   Planning

Each year the children will follow the school's agreed long-term curriculum plan with opportunities to revisit the computing skills acquired and be allowed to extend them.   The Programmes of Study are clear about specifying the opportunities that need to be provided for children in their use of computing. Planning must ensure that children use computing in a wide range of situations so that they learn how and when to use computing appropriately. Children need also to be given the opportunity to discuss the advantages and disadvantages of information and communication technology for different purposes, both in school and beyond. This will allow them to make judgements in the appropriate uses of computing.

Progression should be indicated by moving from using computing as a direct tool in the completion of a task, to the critical view of the ways that computing can be used in a wider context and its application. The children will then be able to decide on the most suitable use of computing.

There are three ways in which the teaching of computing within the curriculum can be classified:

- Focus primarily on the development of computing capability
- Focus on both the development of computing capability and the skills, knowledge and understanding of another subject.
- Using computing, but with the focus primarily on the development of the skill, knowledge and understanding of another subject.

Whilst teaching computing throughout the school, the four areas (communicating, handling information, control and modelling, monitoring) need to be addressed. The medium-term planning sheets will indicate the activities that will be involved during the term with links being made between computing and the other subjects.

5.   Teaching and Learning Styles

The teaching of computing within the classroom situation can be approached in a number of different ways:

- Individual teaching – to include one-to-one teaching
- Whole-class and half-class teaching for demonstration, support teaching and exposition
- Group work – organised by comparable ability, mixed ability, friendship or randomly. The groups can be pairs, threes and up to a maximum of five depending on the program being used.   Group work allows intervention by teaching staff, as well as the very effective use of cascade learning.
- Use of sets of Ipads and ICT Suites for cross curricular teaching.

Effective teaching, regardless of the organisation to be used in the classroom, requires a wide range of techniques to be utilised by the teaching staff. These

include explaining, instructing, questioning, observing, assessing, diagnosing and providing feedback to pupils.

6. Classroom Management

All teachers are responsible for the teaching of computing. Teachers should look for opportunities to praise co-operation and safe, considerate behaviour.

The majority of computing lessons will be taught as mixed ability, whole-class sessions, differentiated mainly by outcome according to the task.

7. Time Allocation

Time spent within each computer suite teaching computing comprises approximately 6% of the teaching week in KS1 (1.15 hours a week, 48 hours per year) and 5% in KS2 (1.15 hours a week, 48 hours a year). There are further opportunities to use the shared area networked computers for follow-up activities and children in KS2 also have the opportunity to use the banks of wireless networked ipads in each team area.

8. Recording of work

At Ingleby Mill Primary School there is a variety of ways in which children can demonstrate what they have learnt and how much they understand. For example:

- Talking, discussing, asking and answering relevant questions
- Making posters, comics, newspaper articles, questionnaires
- Use of video or digital camera when interviewing or collecting evidence.
- Drawing, sketching and painting
- Sorting and classifying information using data bases
- Drawing charts, tables and diagrams
- Drawing maps and plans
- Writing using different genres
- Whole class or group role-play
- Creating class or school displays
- Presenting school or class assembly themes
- Drawing or writing using computer programmes
- Use of the Learning Platform and activities and sites within

9. Assessment and Record Keeping

This will be in line with the whole school Assessment and Recording Policy. Individual teachers will make their own appropriate assessment as identified in their planning for the half/full term.

Assessment of computing capability can be made through a number of different channels:

- Observation
- Finished product, e.g. a print-out/saved file
- Discussion and questioning
- Photograph/digital video of activity

Teachers will make informed judgements on the pupils' progress using evidence for assessment opportunities. This evidence will be recorded in a simple and easily understood format. A 'portfolio of work' is kept on the school network and includes examples of work completed in computing and will continue to be developed be used to inform future planning. Assessment is recorded on the school data tracking system known as Target Tracker.

Assessment of children's computing capability should take account of the following:

- The computing skills developed
- The contexts of the activities
- The purpose of the activity

Clear record keeping will help to inform future planning. It must be noted that progression in computing capability is more than the development of computing skills. Although the acquisition of computing skills is important, it is not sufficient on its own to develop computing capability. Pupils need quality time to consolidate their skills by applying them in a wide range of situations. They also need to have the opportunity to reflect on how they have used computing in different contexts, before they can become fully capable of answering when and when not to use computing. Progression in computing capability will develop as children start to decide which computing tools are most suitable for a given task.

11.   Evaluation

Individual teachers evaluate the success of teaching each week, and, where necessary, suggest future improvements in their short term planning.

The Computing Subject Leader will oversee the long term planning/medium term plans and subject evaluation for the subject.

The range and quality of children's work will be monitored during the course of the year in relation to designs made/ the evaluations of work done by pupils/'pupil voice' recording and actual products achieved.

The Computing Subject Leader will also have the opportunity to evaluate the subject through direct observation of its teaching at agreed times in the year.

12.   Resources

The school has a policy of regularly assessing the relevance and quality of the curriculum and directing resources according to need. This is decided with

consideration of the school's planning policy and consultation between the Head teacher, senior leadership, curriculum co-ordinators and all the teaching staff. Funding for software is allocated from the school's budget and the major hardware will be updated, extended and improved as necessary and when funding is available.

The software is both content-free and subject based, i.e. word processing, document-processing, databases, music, content based web subscriptions, Logo and graphic packages, movie and music making software thus giving a great wealth of usage throughout the curriculum. Staff are actively encouraged to develop their knowledge of the use of software and are currently using the Learning Platform initiative. Some staff have successfully completed Apple Media training and fed back to colleagues within school. Staff are now focussing on embedding computing into other curriculum areas through the use of interactive whiteboards, projectors, Ipads and various learning platforms such as Reading Plus, Active Primary, Seesaw, Times Table Rockstars, Spelling Shed, Nessy and Marvellous Me.

13. <u>Staff roles in the development of computing</u>

The role of the Head teacher:

- To ensure the National Curriculum is implemented
- To be a promoter and facilitator of computing within the school
- To encourage and support the co-ordinator's approach to computing development, thus ensuring staff will use computing confidently.
- To make available the necessary resources to continue the development of computing within the school
- To support the computing co-ordinator in matters relating to the use and development of computing across the curriculum
- To recruit computer literate staff when the opportunity arises.
- To work to achieve equal opportunities in the use of computing throughout the school.
- To ensure an effective E-Safety ethos is followed throughout the school

The role of the Computing Subject Leader

- To promote computing within the school
- To ensure that computing is implemented effectively within the classroom to the National Curriculum requirements
- To act as a support and catalyst for change
- To manage the school computer network
- To work with colleagues in the provision of support and guidance in all matters related to computing.
- To arrange for relevant in-service training for the staff in accordance with the Staff Development Policy. (CPD)
- To organise and review computing resources and their relevance and usage
- To ensure supplies of consumables are maintained

- To help maintain the computers, using external agencies when necessary
- To review and introduce new software programs and hardware as the needs arise
- To provide a good example of the use of computing within the classroom
- To encourage parental involvement in computing and E-Safety
- To maintain contact with the One IT and Local ICT consultants to know where to obtain further advice in matters relating to computing in the curriculum.
- To ensure there is equality of opportunity in the use of computing.

The role of Teaching Staff

- To ensure that computing is used effectively in the classroom to the requirements of the National Curriculum.
- With the support of the Headteacher and Computing Subject Leader to implement highlighted and discussed changes in the use of computing
- To ensure that there is equality of opportunity in the use of computing in the classroom
- To maintain the good condition of computing equipment within the classroom and inform the computing co-ordinator of any problems that may arise.

The role of the governors in the development of computing

Through consultation with the Headteacher and the Computing Subject Leader, the governors will need to have a full understanding of the implications of the extensive and changing uses of computing in the curriculum and society. This will enable them to give the school their fullest support in all matters related to the implementation of computing in the school.

14. <u>Equal Opportunities</u>

The planned use of computing in the curriculum will enable all children to benefit from participation. There will be no barriers to access or opportunity based on race, sex, religion, ethnic group, culture or ability. Working towards equality of opportunity requires that teachers will treat all children as individuals with their own abilities, difficulties and attitudes. The staff will aim to create an environment in which, from the earliest age, children and their teachers learn to respect and value each other. It is important that all children are given opportunities to work in groups, as well as an individual situation, and that groupings be organised with consideration being given to the educational needs of the children. It is also important to emphasise the children are more important than the activity in which they are engaged. Computing, as with all parts of the curriculum, is child-centred.

15. <u>Special Educational Needs</u>

As with all children full access will be given to the use of technology in the curriculum in accordance with statutory requirements and the schools Special Educational Needs Policy. The school will explore the possible benefits of practicable, secured access for the child to use, appropriate information and communication technology. These include word processing facilities, word bank software, providing training in the use of that technology for the child, his or her parents and staff, and wherever appropriate, at home.

In the case of children with special needs the computer can aid communication, as it does not necessarily rely on the spoken word. Computing can allow children with special needs to explore a variety of tasks before they are even able to manipulate a pencil or read. Careful use of Computing will allow all children to progress in areas in which they would probably have otherwise experienced frustration.

The efficient use of computing can help develop physical intellectual, emotional and social skills for children of all abilities, and used carefully can have a particularly profound effect on children with special educational needs. The fact that computing encourages children to accept responsibility for their own learning and due to its versatility it can provide clear opportunities for differentiation. Differentiation can be achieved as follows:

- By task – same topic, differing tasks and strategies
- By outcome – the same topic as others, but their work indicates different levels of achievement.
- By progression – a series of small structured tasks with increasing difficulty and decision-making skills.

The use of a roller ball mouse, larger font keyboards and word banks, tablets and individual laptops are ideal aids for Special Education Needs children. Classroom organisation, curriculum planning and the use of resources will take account of the requirements of Special Educational Needs children.

16. <u>Health and Safety</u>

The following are considerations that will be made when delivering computing to children in the classroom in addition to those laid down in the school's Health and Safety Policy.

The equipment

- The hardware needs to be placed on a work surface in a secure manner so that should it be moved it will not fall off.
- The work surface needs to be an appropriate height, 600mm is recommended for primary schools.
- The monitor needs to be angled for comfortable viewing.
- Children will be provided with comfortable seating that is set at eye level with the screen to avoid neck strain.
- The children will be seated far enough away from the screen to avoid eyestrain.

- Roamer/Bee-Bots/Lego Wedo/Lego Spike/Makey Makey models will only be used in areas where there is no through 'right of way' for other children.

The location

- The network computers will be positioned in the suites with additional machines in team areas and other computers.
- Windows with direct sunlight will have blinds fitted.
- Cables will be secured to ensure the safety of the operator.

The children

- Children will be taught the correct procedure for logging onto and shutting down the hardware.
- They will have regular breaks from the computer to avoid eyestrain.
- No food or drink will be taken near the computer.

Safeguarding/The use of the Internet in the school/E-Safety

All members of the school will implement the school's Internet Access Policy to ensure appropriate use of the Internet. This will:

- Include an Internet Policy letter to go in the 'starter pack', to be signed on admission to school
- Allow all users to access and use the Internet for educational purposes.
- Ensure pupils can use e-mail and World Wide Web facilities.
- Allow school activities that can cover: individual research/preparation of lessons/ project work/homework assignments/communicating with other teachers and students.
- Provide a mechanism by which staff and students are protected from sites, information, and individuals that would undermine the principles and aims of the school. This protection is provided by One IT.
- Provide rules which are consistent and in agreement, with the Data Protection Act.
- Provide rules, which are consistent with the Acceptable Use Policy Procedures commonly used on the Internet, including those associated with netiquette.
- Ensure pupils have to input their own network log-on-id and password so that their internet usage and security can be monitored by network technicians.
- Ensure that pupils have to input their own Learning Platform log-in and password so that usage and security can be monitored by network technicians

17. Parental involvement in Computing

The school will attempt to involve the parents/carers by informing them of the importance and value of computing as a powerful cross-curricular tool so that they can actively encourage their child's development. The various learning platforms mentioned above will provide further access to valuable resources that children and parents can visit and will further support the children's learning.

18.   Review of this policy

The review of this policy will take place in Summer term 2026

APPENDIX:
a) Acceptable Use Statement by staff
b) Responsible Internet Use for children
c) Internet Policy letter.

APPENDIX a) Acceptable Use Statement by staff

INGLEBY MILL PRIMARY SCHOOL

ACCEPTABLE INTERNET USE STATEMENT FOR ALL SCHOOL STAFF

The computer system is owned by the school and is made available to pupils to further their education and to staff to enhance their professional activities including teaching, research, administration and management. The school has an Internet Access Policy drawn up to protect all parties - the pupils, the staff and the school.

The school reserves the right to examine or delete any files that may be held on its computer system or to monitor any Internet sites visited.

- Access should only be made via the authorised account and password that should not be made available to any other person.
- The security of the computing network system must not be compromised whether owned by the school, by Stockton Borough Council or any other organisation or individual.
- All Learning Platform use should be appropriate to staff professional activity or to student's education.
- Sites and materials accessed must be appropriate to work in school. Users will recognise materials that are inappropriate and should expect to have their access removed.
- There may be occasions when a teacher may have photos/videos of children on memory sticks, laptops, cameras or mobiles for educational reasons.
- Images and videos should be stored in the "Staff Shared" area of the school network. Staff may have photos of current pupils in their personal workspace and on their personal PC's and laptops but these must be transferred to the Staff Confidential area or deleted annually. Of course, it is expected that such photographs and videos are only used for educational purposes
- Mobile Phones are **not** to be used to take pictures of children
- Users are responsible for all e-mail sent and for contacts made that may result in e-mail being received.
- The same professional levels of language and content should be applied as for letters or other media, particularly as e-mail is often forwarded.
- Posting anonymous messages and forwarding chain letters is forbidden.
- Copyright of materials and intellectual property rights must be respected.
- All Internet use should be appropriate to staff professional activity or to student's education. Please note that:-
  - The school's computing system may be used for private purposes following guidelines established by the school – checking school email accounts, access to 'Learning Platform' areas.
  - Use for personal financial gain, gambling, political purposes or advertising is forbidden.
  - Closed discussion groups can be useful but the use of public chat rooms is not allowed.

Members of staff are reminded that they should not deliberately seek out inappropriate / offensive materials on the Internet **and** that they are subject to the LA's recommended disciplinary procedures should they do so.

Staff should sign a copy of this Acceptable Internet Use Statement and return it to the Headteacher.

Full name   _____   post   _____

Signed   _____   date   _____

APPENDIX b) Responsible Internet Use for children

INGLEBY MILL PRIMARY SCHOOL

Rules for Responsible Internet Use

The school has installed computers and Internet access to help our learning. These rules will keep everyone safe and help us be fair to others.

- I will use only my own login and password, which I will keep secret.
- I will not access other people's files.
- I will use the computers only for schoolwork and homework.
- I will not bring memory sticks into school without permission.
- I will ask permission from a member of staff before using the Internet;
- E safety- I will be taught in school about the nature of e-safety, alongside learning about how to send emails;
- The messages I send will be polite and sensible;
- I will not give my home address, email address or phone number, or arrange to meet someone, unless my parent, carer or teacher has given permission;
- To help protect other pupils and myself, I will tell a teacher if I see anything I am unhappy with or I receive a message I do not like;
- I understand that the school can check my computer files and the Internet sites I visit.
- I will report any unpleasant messages sent to me.