



## Computing Policy

Policy date: Sept 24

## **Introduction**

The use of information and communication technology is an integral part of the National Curriculum and is a key skill for everyday life. Computers, tablets, programmable robots and video cameras are a few of the tools that can be used to acquire, organise, store, manipulate, interpret, communicate and present information.

At Ingol we recognise that pupils are entitled to quality hardware and software and a structured and progressive approach to the learning of the skills needed to enable them to use technology effectively. The purpose of this policy is to state how we intend to make this provision.

## **Aims**

- Provide a relevant, challenging and enjoyable Computing curriculum for all pupils.
- Meet the requirements of the national curriculum programmes of study for Computing.
- Use Computing as a tool to enhance learning throughout the curriculum.
- To respond to new developments in technology.
- To equip pupils with the confidence and capability to use Computing throughout their later life.
- To enhance learning in other areas of the curriculum using Computing.
- To develop the understanding of how to use Computing safely and responsibly.

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, including new or unfamiliar technologies, analytically to solve problems.
- are responsible, competent, confident and creative users of information and communication technology.

## **Rationale**

The school believes that Computing:

- gives pupils immediate access to a rich source of materials.
- can present information in new ways, which help pupils understand access and use it more readily.
- can motivate and enthuse pupils.
- can help pupils to focus and concentrate.
- offers potential for effective group working.
- has the flexibility to meet the individual needs and abilities of each pupil.

## **Objectives**

### 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. In EYFS, Computing is taught through access to continuous provision. This is informed by Barefoot Computing as recommended by the NCCE as the prelude to Teach Computing. This provides children with cross-curricular resources and activities based around computational thinking concepts and approaches (Appendix One).

### 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 a sequence of instructions.
- write and test simple programs.
- use logical reasoning to predict and computing the behaviour of simple programs.
- organise, store, manipulate and retrieve data in a range of digital formats.
- communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

### Key Stage 2

By the end of Key Stage 2 pupils should be taught to:

- design and write 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; generate appropriate inputs and predicted outputs to test programs.
- use logical reasoning to explain how a simple algorithm works 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.
- describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely.
- 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.

## **Resources and Access**

We need to continually maintain, update and develop our equipment and to make progress towards a consistent, compatible system by investing in resources that will effectively deliver the strands of the National Curriculum and support the use of Computing across the school.

To this end, every child has a Microsoft log-in which allows them to access, revisit and save work in the cloud.

Teachers are required to report any faults as soon as they are noticed. Ingol uses Western Computers to support and maintain our infrastructure.

To ensure Computing can be delivered across the whole school, every classroom currently has access to the following equipment:

- A teacher Laptop.
- An interactive whiteboard with separate sound bar and DVD facilities.
- Microsoft and Microsoft Minecraft Education.
- A class set of laptops.
- A school set of iPads.
- Relevant and up-to-date apps on all devices.
- Programable devices.

Specific computing skills are taught as and when required and children are given opportunities to apply these skills with our creative curriculum.

Pupils may use computing independently, in pairs, alongside a TA or in a group with a teacher.

### **Planning**

All teachers will follow the NCCE Teach Computing scheme; long term, medium term and short-term plans are readily available with supporting materials such as teaching slides, videos, resources and assessment tools. Computing will be taught discreetly once a week in every class from Year 1 – Year 6.

### **Assessment and Record Keeping**

The following strategies are in place:

- The programmes of work identify clear opportunities for the monitoring and record keeping of pupils' progress.
- A clear recording mechanism.
- Programmes of work include related tasks that assist the teacher to assess the pupils' progress and attainment in Computing.
- Differentiated assessment for pupils with high levels of Computing capability, or special needs.
- Progress in Computing will be reported to the Headteacher and governing body annually

### **Monitoring and Evaluation**

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the schools monitoring cycle. This may be through learning walks, work scrutiny, pupil voice and staff voice. The subject leader is also responsible for supporting colleagues in the teaching of computing, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. We allocate time for the vital task of reviewing samples of children's work and for visiting classes to observe teaching in the subject.

### **Pupils with Special Educational Needs**

We believe that all children have the right to access Computing. In order to ensure that children with special educational needs achieve to the best of their ability, it may be necessary to adapt the delivery of the Computing curriculum for some pupils. We teach Computing to all children, whatever their ability. Through the teaching of Computing, we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each child's different needs. Where appropriate, Computing can be used to support SEND children on a one-to-one basis where children receive additional support. Apps such as IDL are also used to support SEND children.

Additionally, as part of our dyslexia friendly approach to teaching and learning, we will use adapted resources wherever possible such as visual timetables, different coloured backgrounds and screen printouts.

### **Equal Opportunities**

Ingol will ensure that all children are provided with the same learning opportunities regardless of social class, gender, culture, race, disability or learning difficulties. As a result, we hope to enable all children to develop positive attitudes towards others. All pupils have equal access to Computing and all staff members follow the equal opportunities policy. Resources for SEND children and greater depth children will be made available to support and challenge appropriately.

### **The role of the subject lead**

The Computing subject lead is responsible for producing a Computing development plan and implementing the Computing Policy across the school. The subject lead will:

- offer help and support to all members of staff in their teaching, planning and assessment of Computing.
- maintain resources and advise staff on the use of materials, equipment and books.
- monitor classroom teaching or planning following the schools rolling programme of monitoring.
- lead staff training on new initiatives.
- share management of the Computing budget.

- attend appropriate CPD and keep staff up to date with relevant information and developments.
- have a passion for Computing and encourage staff to share this enthusiasm.
- keep parents and governors informed on the implementation of Computing in school.
- liaise with all members of staff on how to reach and improve on agreed targets.
- help staff use assessment to inform future planning.

The subject lead will also help to:

- maintain and manage the network.
- monitor and maintain licenses, including anti-virus.
- support class teachers in Computing delivery.
- lead training for staff.
- manage the school website.
- ensure the smooth day to day running of the school WI-FI and network.
- ensure technologies are up to date and well-maintained.

### **The role of the class teacher**

Individual teachers will be responsible for ensuring that pupils in their classes have opportunities for learning computing skills and using computing across the curriculum.

Class teachers will:

- plan and deliver the requirements for Computing to the best of their ability. At Ingol we set high expectations for our pupils and provide opportunities for all pupils to achieve, including pupils with educational special needs, pupils with disabilities, pupils from all social and cultural backgrounds, and those from diverse linguistic backgrounds. The class teacher ensures success by creating effective learning environments.
- follow the Teach Computing scheme for their year group; adapting where possible to suit the needs of all pupils.
- provide equality of opportunity through teaching approaches.
- use effective assessment tools to check pupils' understanding.
- set suitable targets for learning for all abilities.
- provide a stimulating and engaging learning environment to motivate pupils.

The class teacher's role is a vital role in the development of Computing throughout the school and will ensure continued progression in learning and understanding.

### **Staff training**

The Computing subject lead will assess and address staff training needs as part of the annual development plan process or in response to individual needs and requests throughout the year. Individual teachers should attempt to continually develop their own skills and knowledge, identify their own needs and notify the subject lead. Teachers will be

encouraged to use Computing to produce plans, reports, communications and teaching resources.

### **Health and Safety**

The school is aware of the health and safety issues involved in children's use of technology and computing. All fixed electrical appliances in school are tested by a LA contractor. It is advised that staff should not bring their own electrical equipment into school but if this is necessary, then the equipment must be PAT tested before being used in school. This also applies to any equipment brought in to school by, for example, people running workshops, activities etc and it is the responsibility of the member of staff organising the workshop, etc to advise those people.

All staff should visually check electrical equipment before they use it and take any damaged equipment out of use. Damaged equipment should then be reported to the subject lead and Western who will arrange for repair or disposal.

- Children should not put plugs into sockets or switch the sockets on.
- Trailing leads should be made safe behind the equipment.
- Liquids must not be taken near the computers.
- Magnets must be kept away from all equipment.
- Safety guidelines in relation to IWBs will be displayed in the classrooms.

### **Inclusion**

At Ingol we plan to provide for all pupils to achieve, including boys and girls, higher achieving pupils, greater depth pupils, those with SEND, pupils with disabilities, pupils from all social and cultural backgrounds, children who are in care and those subject to safeguarding, pupils from different ethnic groups and those from diverse linguistic backgrounds.

### **Security**

The Headteacher will be responsible for regularly updating anti-virus software and the filtering systems. Use of Computing will be in line with the school's 'acceptable use policy'. All staff, volunteers and children must sign a copy of the schools Acceptable Use Policy. Parents will also be made aware of the AUP. All pupils and parents will be aware of the school rules for responsible use of technology and computing, and will understand the consequence of any misuse. The agreed rules for safe and responsible use of technology, computing and the internet will be displayed in all computing areas.

### **Cross-Curricular Links**

At Ingol we are all aware that computing capability should be supported by core and foundation subjects. Where appropriate, Computing should be incorporated into schemes of work for all subjects. Computing should be used to support learning in other subjects as well as develop computing skills.

Signed: *J Moss* (Computing Subject leader)

September 2024

Review: September 2025