

Computing (ICT) Policy

Hornsea Burton and Skipsea Federation

Vision

ICT is changing the lives of everyone. Through teaching ICT we equip children to participate in a rapidly-changing world where work and leisure activities are increasingly transformed by technology. We enable them to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. ICT skills are a major factor in enabling children to be confident, creative and independent learners.

The aims of ICT are to enable children;

- to develop ICT capability in finding, selecting and using information;
- to use ICT for effective and appropriate communication;
- to monitor and control events both real and imaginary;
- to apply hardware and software to creative and appropriate uses of information;
- to apply their ICT skills and knowledge to their learning in other areas;
- to use their ICT skills to develop their language and communication skills;
- to explore their attitudes towards ICT and its value to them and society ,
- to learn about issues of security, confidentiality and accuracy particularly in relation to personal safety regarding internet use.

Teaching and learning style

As the aims of ICT are to equip children with the skills necessary to use technology to become independent learners, the teaching style that we adopt is as active and practical as possible. There is a core scheme of work in which the use of hardware and software is taught, this then enables the application of these skills for individuals or groups of children to use ICT to support their learning in other curriculum areas. So, for example, children might research a history topic by using a CD-ROM, or they might investigate a particular issue on the Internet. Children who are learning science might use the computer to model a problem or to analyse data. We encourage the children to explore ways in which the use of ICT can improve their results, for example, how a piece of writing can be edited or how the presentation of a piece of work can be improved by moving text about etc.

We recognise that all classes have children with widely differing ICT abilities. This is especially true when some children have access to ICT equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child.

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We achieve this in a variety of ways, by:

- setting common tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all tasks);
- grouping children by ability in the room and setting different tasks for each ability group;
- using staff to support the work of individual children or groups.
- providing resources of different complexity that are matched to the ability of the child.

ICT curriculum planning



These are the essential characteristics of effective coders and users of technology that we want our pupils to achieve during their time at our school:

- Competence in coding for a variety of practical and inventive purposes, including the application of ideas within other subjects.
- The ability to connect with others safely and respectfully, understanding the need to act within the law and with moral and ethical integrity.
- An understanding of the connected nature of devices.
- The ability to communicate ideas well by using applications and devices throughout the curriculum.
- The ability to collect, organise and manipulate data effectively.

In accordance with the new National Curriculum for Computing, our school will provide opportunities for children in KS1 so that they:

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 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.

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For children in KS2, opportunities will be provided so that they:

Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

- Use sequence, selections 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, 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.

The school uses the Rising Stars scheme of work for Computing and Chris Quigley Essentials Curriculum which is linked to the new National Curriculum as the basis for its core subject teaching. We draw on the relevant Key Skills and cross-curricular themes to plan our units of work.

We carry out the curriculum planning in Computing in two phases (Medium-term and short-term). We refer to Rising Stars units relevant to our age range where appropriate and choose the one that is most relevant to our topic. The ICT subject coordinator works in conjunction with teaching colleagues in each class, and the children often study ICT as part of their work in other subject areas. Our long-term plan shows how teaching units are distributed across the year groups, and how these fit together to ensure progression within the curriculum plan.

Our medium-term plans, which we have based on Rising Stars, give details of each unit of work for each term. The medium term overview sheets that we complete for each topic shows the coverage and Key Skills to be worked on during that unit. They identify the key learning objectives to be covered through that topic and ICT opportunities will be identified for each week. The ICT subject coordinator is responsible for keeping and reviewing these plans. As we have mixed-age classes, we do our medium-term planning based on the Key skills relating to national curriculum levels that children are working at over a two year cycle. In this way we ensure that we cover the National Curriculum without repeating topics and ensure that opportunities are planned at each child's current level.

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The class teacher is responsible for writing the short-term plans with the ICT component of each lesson. These daily plans list the specific learning objectives of each lesson. The class teacher keeps these individual plans and s/he and the ICT subject leader often discuss them on an informal basis.

The topics studied in ICT are planned to build upon prior learning. While we offer opportunities for children of all abilities to develop their skills and knowledge in each unit, we also build planned progression into the scheme of work through the Chris Quigley Essentials Curriculum milestones, so that the children are increasingly challenged as they move up through the school.

Foundation Stage

We teach ICT in reception class 1 as an integral part of the topic work covered during the year. As the reception class is part of the Early Years Foundation Stage, we relate the ICT aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children in the Foundation Stage. The children have the opportunity to use the computers and a digital camera and can often access these during their free play. Various activities are planned and set up for children to select ICT in their self initiated play. Then during the year they gain confidence and start using the computer to find information and use it to communicate in a variety of ways.

The contribution of ICT to teaching in other curriculum areas

ICT contributes to teaching and learning in all curriculum areas. For example, graphics work links in closely with work in art, and work using databases supports work in mathematics, while CD ROMs and the Internet prove very useful for research in humanities subjects. ICT enables children to present their information and conclusions in the most appropriate way. Our purchase of the Espresso learning package provides a wide range of teacher demonstrations and pupil activities across the whole curriculum. Education City is also used to extend the curriculum throughout the school. This is used in a variety of ways to extend children's learning including in class as a whole class activity on the interactive whiteboard or independently as extension activities.

Literacy

ICT is a major contributor to the teaching of English. Through the development of keyboard skills and the use of computers, children learn how to edit and revise text. They learn how to improve the presentation of their work by using desk-top publishing software. Education City is also useful for Literacy to consolidate skills or as a formative assessment tool. Star spell allows children to practice and consolidate skills taught in lessons. Tape recorders, digital cameras and video cameras are also utilised in Literacy lessons to extend the learning opportunities and to allow children to record using methods other than always relying on writing.

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Mathematics

Many ICT activities build upon the mathematical skills of the children. Children use ICT in mathematics to collect data, make predictions, analyse results, and present information graphically. Education City supports the acquisition and consolidation of new mathematical concepts and skills and can be used to inform AFL. The RM Maths software may also be used for booster groups, independent practice of skills and as a formative assessment tool.

Personal, social and health education (PSHE) and citizenship

ICT makes a contribution to the teaching of PSHE and citizenship as children learn to work together in a collaborative manner. They develop a sense of global citizenship by using the Internet and e-mail. Through the discussion of moral issues related to electronic communication, children develop a view about the use and misuse of ICT, and they also gain a knowledge and understanding of the interdependence of people around the world. Espresso extends these opportunities for children.

Teaching ICT to children with special educational needs

At our school we teach ICT to all children, whatever their ability, ICT forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our ICT teaching 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. Assessment against the National Curriculum through use of Chris Quigley milestones allows us to consider each child's attainment and progress against expected levels. ICT also provides an opportunity for reluctant writers to record their work using keyboard skills.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors - classroom organisation, teaching materials, teaching style, differentiation so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

For children with special educational needs, their pupil support plan may include, as appropriate, specific targets relating to ICT. In some instances the use of ICT has a considerable impact on the quality of work that children produce; it increases their confidence and motivation.

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We enable pupils to have access to the full range of activities involved in learning ICT. Where children are to participate in activities outside the classroom, for example, a visit to an ICT exhibition, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

Roles and responsibilities

The Head will

- Set high expectations and monitor teaching and progress
- Determine ways in which ICT can support, enrich and extend the curriculum
- Ensure a whole school approach, keeping parents, governors and support staff well informed.
- Support the ICT co-ordinator and other teachers

The Governors will

- Be well informed through the leadership of the Headteacher and the ICT coordinator
- Support the staff in implementing the school's policy for ICT
- Help monitor and review progress on the ICT action plan

The ICT co-ordinator will

- Support colleagues in planning, teaching and assessment
- Provide expertise and advice on the use of resources
- Write, monitor and review progress on the ICT action plan
- Will act as a point of contact between the school and appropriate outside visitors and liaise with the ICT technician.
- Work alongside the Headteacher to monitor and evaluate teaching and progress
- Coordinate the evaluation and review of the school's ICT policy
- Manage the provision and deployment of resources

Teachers will

- Use the Rising Stars Resource and Chris Quigley Essentials Curriculum (which is linked to the new National Curriculum) to aid short term planning
- Share clear learning objectives and success criteria with the children

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- Use a range of teaching styles
- Plan activities that allow for different levels of achievement by pupils
- Use the learning outcomes at the end of each unit as an aid to record and monitor pupil progress.
- Record pupil progress on end of year assessment grids to show their current level.
- Inform Parents/Carers of their child's progress through annual reports

Support staff will

- Be included in staff training for ICT where appropriate
- Have a clear understanding of the ICT skills to be developed
- Share the learning objectives and success criteria for the lesson and know the key vocabulary to be developed

Parents will

- Be encouraged to develop positive attitudes to ICT
- Be given opportunities to view pupils work
- Be informed of their child's progress through annual reports
- Be given opportunities to attend any computer course in the school's ICT room

Assessment and recording

Teachers assess children's work in ICT by making informal judgements as they observe them during lessons. On completion of a piece of work, the teacher marks it and comments as necessary. At the end of a unit of work s/he makes a summary judgement about the work of each pupil in relation to the National Curriculum levels of attainment/Chris Quigley milestones, and records these attainment grades on the end of year assessment sheets. We use this as the basis for assessing the progress of the children and to pass information on to the next teacher at the end of the year.

The ICT subject coordinator may keep samples of the children's work in a portfolio. There is a display board in the ICT room which can be used to show examples of work from each class.

Resources

Each Classroom has a dedicated high specification PC linked to an interactive whiteboard and sound system. There is also an interactive whiteboard in the ICT room to allow modelling of skills. Timetabled access is available for a portable suite of wireless laptops. In addition we have a computer room with a network of computers for groups of children. The school has a managed and

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secured broadband Internet access for all computers. We keep resources for ICT, including software, in a central store.

Monitoring and review

The monitoring of the standards of the children's work and of the quality of teaching in ICT is the responsibility of the ICT coordinator. The ICT coordinator is also responsible for supporting colleagues in the teaching of ICT, for keeping informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The ICT coordinator has specially-allocated time for carrying out the vital task of reviewing samples of the children's work and for visiting classes to observe the teaching of ICT during the ICT review cycle. This policy has been reviewed and updated Autumn term 2016 with no major changes. It will be reviewed at least every 2 years.