Holtsmere End Junior School
Computing policy
Autumn 2022
To be reviewed Autumn 2024

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The School's Information Communication Technology Policy is part of the School Improvement plan and Computing action Plan. It relates to other policies including those for behaviour and for personal, social and health education (PSHE) including Relationships. The Computing policy has been written by the Computing subject leader.

Introduction

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

The Computing Curriculum has been planned to be mastery of a body of subject- specific knowledge designed specifically to meet the needs of our children.

At Holtsmere End Junior School we believe that the skills are the by-product of the knowledge, not its purpose.

Learning is defined as an alteration of the long-term memory. If nothing has altered in long term memory, nothing has been learned. Therefore the Computing Curriculum has been planned accordingly to 'make knowledge stick'.

At Holtsmere End Junior School we know that vocabulary size is related to academic success, and schooling is crucial for increasing the breadth of vocabulary. Skills and knowledge for the subject have been identified and are lesson specific. Skills start with an imperative verb eg. Explore, consider, investigate…

Knowledge is 'to learn' and will be key facts.

Hooks to engage children will be planned for and should be varied with a focus on real artefacts where possible. Challenge and Choice should be included in most lessons or some form of differentiation clearly identified. Differentiation will always focus on how children can

demonstrate their subject specific ability and not have a barrier to this, for example their ability to write. Planned opportunities for cross curricular writing will be included, where appropriate.

Intent Statement

At Holtsmere End Junior School, **we deliver the computing National Curriculum objectives through the Purple Mash Scheme of learning. Via Purple Mash, computing is organised into three core strands outlined in the National Curriculum:** computational thinking, digital literacy and information technology. These three strands are taught through a weekly computing lesson. We support the children to fine tune their research and data gathering skills using ICT. Through this approach we aim to give our pupils the life-skills that will enable them to use computational thinking and creativity to understand and change the world.
we recognise the importance of Computing and its importance in an everchanging technological world. We want all pupils to develop a love for computing and strive to reach their full potential with the vast array of technology available to them. We strive to develop technological curiosity and provide pupils with fun, inspiring computing links within our curriculum. Memorable experiences through visitors and visitors aim to provide pupils with opportunities to learn important life skills such as E-Safety. Throughout the computing curriculum, pupils are challenged to develop as an individual, to overcome problems, discover new skills and strive to be empowered by technology.
Our digital Leaders scheme empowers our young leaders to deliver E-Safety to their peers and in the future the Infant School.

Our Vision for Computing:

At Holtsmere End Juniors we believe that:

- That computing is integral to school life.
- That e-safety is at the core of all computing teaching.
- That computing is able to cater for all children's individual needs and is used to support a range of learning styles.
- That pupils are empowered to take control of their own computing learning and are able to extend their learning beyond the classroom through increased access to resources.
- That pupils learning of the whole curriculum is enhanced through the use of a range of technologies.
- That pupils are prepared for the future and the new technology it holds.
- That staff are supported through CPD as they are paramount to success.

We can achieve this vision by:

- Providing an exciting, rich, relevant, and challenging Computing curriculum for all pupils.
- Helping children to develop a range of computing skills which will enable them to make effective use of resources for themselves.
- Encouraging all pupils to have the confidence to experiment with new software and apply their developing skills in new contexts.
- Developing an understanding of when computing can give quicker or better results than other methods and also when it might be inappropriate to use computing.
- Helping children to gain a sense of achievement by developing the patience, resilience and persistence to realise their ideas and recognise the possibilities of going wrong without the feeling of a sense of failure.

Our aims for computing education are to ensure that all pupils:

- Are provided with a relevant, challenging, and enjoyable curriculum for ICT and computing 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.

Principles for the use of computing

Computing education is important because:

- It equips pupils to use computational thinking and creativity to understand and change the world.
- It equips pupils with skills, strategies and knowledge that will enable them to reap the benefits of the online world, whilst being able to minimise risk to themselves or others.
- It has deep links with mathematics, science, and design and technology.
- It provides insights into both natural and artificial systems.
- It equips pupils to create programs, systems, and a range of content.
- It ensures that pupils become digitally literate at a suitable level for the future workplace and as active participants in a digital world.
- It prepares pupils to participate in a rapidly changing world in which work and leisure are increasingly transformed by access to new technologies.
- It enables children to employ computing to access ideas and experiences from a wide range of people, communities and cultures.
- It increases capability promotes initiative and independent learning and the ability to be selective about its use.
- It can motivate and enthuse pupils.
- It can help pupils focus and concentrate.
- It offers potential for effective group working.
- It has the flexibility to meet the individual needs and abilities of each pupil.

Teaching and Learning

Safeguarding

Ensuring the safety of pupils and staff is of primary importance. Safeguarding procedures are described throughout this policy and are in place to safeguard all members of the school community. Cyber bullying is taken seriously in our school and all safeguarding procedures should be followed with regards to the use of electronic devices

Implementation

Computing teaching will deliver the requirements, through our half-termly units. Our Computing progression model is broken down into three strands that make up the computing curriculum. These are Computer Science, Information Technology and Digital Literacy. Computer Science underlines the knowledge and skills relating to programming, coding, algorithms and computational thinking. Information Technology underlines the knowledge and

skills relating to communication, multimedia and data representation and handling. Digital Literacy underlines the knowledge and skills relating to online safety and technology uses all of which are covered weather combined or discreetly.
We use and follow the Purple Mash scheme of work from Year 3-6, ensuring consistency and progression throughout the school.
We recognise that computing is a specialist subject and not all teachers are computing specialists. Computing lessons are taught by our teaching staff with additional support from our member of staff in charge of Computing and through training provided by 2Simple.. The Purple Mash scheme of work enables clear coverage of the computing curriculum whilst also providing support and CPD for less confident teachers to deliver lessons.
Lessons are broken down into weekly units, usually with two units taught per half-term. Units are practical and engaging and allow computing lessons to be hands on. Units cover a broad range of computing components such as coding, spreadsheets, Internet and Email, Databases, Communication networks, touch typing, animation and online safety.
When teaching computing teachers can follow the children's interests to ensure their learning is engaging, broad and balanced. Teachers should ensure that ICT and computing capability is also achieved through core and foundation subjects and where appropriate and necessary ICT and computing should be incorporated into work for all subjects using our wide range of interactive ICT resources.
Through our Purple Mash subscription our teachers can deliver thematic, cross curricular lessons that also follow children's interests and provide flexibility. Purple Mash has an online portal of age-appropriate software, games and activities as well as topic materials and materials to support children's learning in other subject areas for all key stages.
Computing lessons will also use the Purple Mash software to 'make music' using the 2Sequence program, design and make using the 2Animate software and make links with maths through spreadsheets using 2Calculate.
As a school we will also ensure that a Remote Learning Platform (Google classroom) is established, so that children can access education remotely .

National Curriculum

By its very nature the Computing Curriculum is liable to change frequently. The plan for developing the curriculum and managing changes is outlined in the school's Computing Action Plan which is updated at least once a year by the Computing Subject Leader. It includes proposals for future development of the curriculum, use of resources, staff training needs and long-term replacement of hardware. Not all the required changes can be made in the short term because of the cost and training time involved. The delivery of the computing curriculum Key Stage 2 will be taught through a curriculum devised by Purple Mash

Objectives

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.

Cross-curricular Links

Computing has many cross curricular; computing is utilised in other areas of the curriculum where children use their digital literacy skills to create content in subjects such as Mathematics, English, History, Science and Design and Technology.

Special Educational Needs

At Holtsmere End Junior School, we aim to enable all children to achieve to their full potential. This includes children of all abilities, social and cultural backgrounds, those with disabilities, EAL speakers and SEN statement and non-statemented. We place particular emphasis on the flexibility technology brings to allowing pupils to access learning opportunities, particularly pupils with SEN and disabilities. With this in mind, we will ensure additional access to technology is provided throughout the school day and in some cases beyond the school day.

Assessment, Monitoring and Evaluation

Teachers regularly assess capability through observations and looking at completed work. Key objectives to be assessed are taken from the national curriculum to assess key computing skills

each term. Assessing ICT and computing work is an integral part of teaching and learning and central to good practice. As assessment is part of the learning process it is essential that pupils are closely involved.
Computing work is saved in the childrens' folder in Purple Mash. This will provide 4 years of work .
Monitoring standards of teaching and learning within Computing is the primary responsibility of the Computing Lead and SLT. Monitoring enables the SLT to gain an overview of Computing and ICT teaching and learning throughout the school. This will assist the school in the self-evaluation process identifying areas of strength as well as those for development. In monitoring the quality of Computing and ICT teaching and learning, the Computing Lead and SLT will:

- Observe teaching and learning in the classroom.
- Hold discussions with teachers and children.
- Analyse children's work
- Examine plans and teaching slides to ensure full coverage of the Computing and cross-curricular ICT

Staff Development

At Holtsmere End Junior it is vital that all teachers are confident and competent in the use of computing:

- Scheduled pupil voice sessions and learning walks steer changes and inform training needs.
- We want to provide professional growth by identifying and considering each individual staff's needs and aspirations and the school's needs.
- Staff are encouraged to improve their own performance and that of others and are encouraged to learn and develop effectively.
- Training for staff and governors is relevant to their needs and ultimately positively impacts on the pupils.
- We are committed to ensuring equality of opportunity and inclusion in the development of all staff.
- Staff understand the impact that the development of people has on the performance of our school, on our teams and on individuals.
- The Senior Management Team is supportive of the development of all our staff.

Resources:

Hardware

At Holtsmere, a range of resources are available, which successfully supports delivering the Computing curriculum and enables all learners to reach their full potential.

All teachers have one computer in their room which is connected to the school network and gives access to school resources, software and the Internet. Each class has Touchscreens which have replaced the traditional Smartboards. Each classroom also haso 2 I-Pads (supplied Autumn 2021).There are also 16 iPads to support learning (purchased October 2020); a set of 15 iPads that can be used in classrooms to support Lexia and the afternoon curriculum. We have also purchased (Autumn 2021) a set of 30 Chrome books and trolley to be used in Year 6. All hardware appliances are audited each year and updated as hardware is changed or added. At Holtsmere End we have a commitment to renew equipment regularly to reflect current and developing technologies. Resources are suitably maintained and replenished when needed, which is overseen by the Computing Leader and Intermit. Each teaching member of staff is provided with a school laptop which is registered in line with DfES regulations. Every staff laptop is encrypted for added security. Their use is monitored in the same way as the school computers are.

- Everyone must log on to the school network using their secure log on.
- All machines should be locked when the user is away from the machine
- Only machines accessing through the network server are allowed (no personal machines or handheld devices).

A full hardware audit will be carried out. This is to make sure that equipment can be located at all times, as well as monitoring when hardware is becoming outdated. Teachers are each responsible for the computers in their room and share responsibility for the computing suite. Each teacher is asked to sign an Acceptable Internet Use Statement. Staff have training in Data Protection and Information Security. The I-Pads must always be placed in the correct slot so they can be easily accounted for and the trolley must be locked in the Headteacher's Office for added security. The Chrome Books must always be placed in the correct slot so they can be easily accounted for and the trolley must be placed in the Year 6 cupboard for added security.

Cameras and Video Cameras

Cameras are available in school and are shared between staff. Staff also have use of iPads which can be used to record images and video, as well as sending messages, videos and pictures via Marvellous Me. Once staff have finished with images, they are actively encouraged to remove images and copy them onto the school system. School cameras and iPads are for school use only and should not be taken home. Staff members should not use personal equipment (cameras or mobile phones) to take photographs or other images of pupils. All images taken using the school cameras or iPads should be uploaded onto the network and if required for records or classwork, printed out at school. Staff should not keep images of pupils on their memory sticks. Consent for using images of pupils for use on the school's newsletters, website or for media purposes is obtained from parents upon enrolment to school.

Mobile Phones

The use of mobile phones and other digital devices by pupils in school is not permitted. Phones brought to school by pupils are done so at the owner's risk and are the responsibility of the pupil. Pupils in Year 5 and 6, who do bring phones into school, have the device locked in a filing cupboard for the day and handed back to them at the end of the school day. The use of mobile phones by staff is only permitted when pupils are not present or in the staff room.

Interactive Whiteboards

Each class within school has a Touchscreen Interactive Whiteboard and teachers are monitored to ensure they are being used to their full potential. Where appropriate, lessons make use of digital resources and are interactive as to ensure that the children are fully stimulated and enthused.

Software

A wide-range of software is available on the network to suit the varied curriculum that we cover. There is a suitable selection of software available to facilitate the teaching of computing and create cross-curricular links. Software is always downloaded onto the school network. An audit of all software and licences is kept. This audit is updated regularly. Computing resources are valuable and sensitive to the environment in which they are stored. Care should be taken when moving them around school.

Health and Safety Issues in Computing.

As in all subjects, health and safety aspects need to be considered, planned for and risks removed where possible. In computing all users need to be made aware that to reduce risks of injury we need to:

- Use of correct seating whenever computing is used.
- Ensure that there are adequate ventilation / air changes.
- Monitors should be checked for height and angle of view and moved if necessary (placing them back before leaving the equipment).
- Ensure cabling is made secure and kept out of sight wherever possible

The Internet

The Importance of the Internet in School:

The purpose of Internet access in school is to raise educational standards, to support the professional work of staff and to enhance the school's management information and business administration systems. The statutory curriculum expects pupils to learn how to locate, retrieve and exchange information using computing. To deliver the curriculum, teachers need to plan for and make use of communications technology. Access to life-long learning and employment increasingly requires computer and communications use and pupils need to develop life skills in their use. Home and social Internet use is expanding, and it is now an important part of learning and communication during leisure time. It brings pupils into contact with a wider range of information, the scope and nature of which may or may not be appropriate for the pupil. Whilst we cannot be responsible for internet use outside of school, at Holtsmere End Junior School we feel it is important to work with children and parents to ensure that all are informed in how to stay safe and use the internet responsibly.

Access to information from National Online Safety -

https://nationalonlinesafety.com/

will be sent home and displayed on Parent's Forums regularly.

PREVENT and Radicalisation 5.4

(a) Radicalisation is defined as the act or process of making a person more radical or favouring of extreme or fundamental changes in political, economic or social conditions, institutions or habits of the mind. Extremism is defined as the holding of extreme political or religious views. The Governing Body at Holtsmere End Junior School has a zero-tolerance approach to extremist behaviour for all school community members. We rely on our strong values and ethos to steer our work and ensure the pastoral care of our children protects them from exposure to negative influences. Holtsmere End Junior School is fully committed to safeguarding and promoting the welfare of all its children. As a collaboration, we recognise that safeguarding against radicalisation is no different from safeguarding against any other vulnerability and therefore we teach children how to use the internet safely and what to do if they see anything that they find unsettling. All staff and pupils are expected to uphold and promote the fundamental principles of British values, including democracy, the rule of law, individual liberty and mutual respect, and tolerance of those with different faiths and beliefs both online and inside of school. We teach regular E-Safety sessions within school to promote

safe internet use and this complements the key "British Values" of tolerance, respect, understanding, compassion and harmonious living.

How are the risks assessed?

At Holtsmere End Junior School, we understand that in common with other media such as magazines, books and video, some material available via the Internet is unsuitable for pupils. It is difficult to completely remove the risk that pupils might access unsuitable materials via the school system but we have a number of systems in place to limit these risks.

- The use of computer systems without permission or for purposes not agreed by the school could constitute a criminal offence under the Computer Misuse Act 1990;
- Methods to identify, assess and minimise risks are constantly reviewed by the school, in partnership with the Local Authority.
- Staff, parents, governors and advisers work to establish agreement that every reasonable measure is being taken.
- Children are regularly given e-safety training at least at the start of every term so that they are aware of how to keep themselves safe, minimise exposure to unsuitable material and how to report anything that they feel is unsuitable.

How does school ensure Internet access is safe?

Our internet service is provided by Interim and at Holtsmere End Junior School we are therefore protected by the LA content filtering system which is maintained by Interim. There are mechanisms and procedures in place to delete unsuitable websites through global and local blocking strategies and filtering:

- Offensive and illegal material is filtered at a national level.
- Inappropriate sites are then filtered at local level.

Teachers can request that sites of educational value are unblocked. The relevant site will, if authorised be passed to Interim for unblocking. Staff are allowed to use YouTube links, but insert these links into https://video.link/ to ensure safer content is displayed.

In school, children are taught how to use the internet to search for information. They are taught the skills necessary to do this and also about its appropriateness and safety implications.

- Pupils and teachers are informed that Internet use is supervised and monitored;
- The school works in partnership with parents, the LA, DfE and the Internet Service Provider to ensure systems to protect pupils are reviewed and improved;
- If staff or pupils discover unsuitable sites, the URL (address) and content are

reported to the Internet Service Provider via the Computing Subject leader;

- Pupils are made aware that the writer of an e-mail or the author of a Web page might not be the person claimed.
- Pupils are encouraged to tell a teacher immediately if they encounter any material that makes them feel uncomfortable.
- Annually the school celebrate 'Safer Internet Day'. However, computing teaching should be widened to incorporate Internet content issues:
- The value and credibility of Web materials in relationship to other media. The tendency to use the Web when better information may be obtained from books may need to be challenged.
- Pupils are taught ways to validate information before accepting that it is necessarily accurate.
- Pupils are taught to acknowledge the source of information, when using Internet material for their own use;
- Pupils are taught at an age appropriate level about the dangers that the internet exposes and are taught how to keep themselves safe.

How is security of school computing systems maintained?

The Internet is a connection to the outside world that could compromise system performance or threaten security.

- Security strategies are discussed and reviewed with the LA on a regular basis.
- The security of the whole system is reviewed with regard to threats to security from Internet access.
- Virus protection is installed and updated regularly.
- Staff and Pupils scan any data storage devices before connecting them to the school network.

How is Internet access authorised?

All staff sign an agreement of responsible internet use when they join Holtsmere End. At the beginning of Year 3 Pupils are read the Computer Policy and asked to sign the sheet. They are then reminded of this each year with the invitation to discuss any concerns that may arise from it- resigning it every year. Everyone has a personal log on for which they are responsible. Log On's are monitored by staff and Interim. Additional Log On's are requested through the Computing Subject Leader and are created by our tech support from Interim.

- Internet access is a necessary part of the curriculum. It is an entitlement for pupils based on responsible use.
- Parents are informed that pupils are provided with supervised Internet access
- Parents, pupils and staff are asked to sign a responsible use agreement form.

- Children are now asked to review this responsible use form each year & sign it again as part of their class.

Responsible use agreements:

All staff at Holtsmere End must agree to the following before using any piece of computing equipment: The computer system is owned by the school and is made available to staff to enhance their professional activities including teaching, research, administration and management. The school has an Acceptable Internet Use 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 system must not be compromised whether owned by the school, by Hertfordhsire County Council or any other organisation or individual.
- 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.
- Users should not deliberately seek out inappropriate or offensive materials on the internet (LA's recommended guidelines will be followed if needed).
- 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.
- Anything transferred from the school network with sensitive data in it i.e. children's names and dates of birth must be password protected. This includes e-mails and the learning platform.
- Only encrypted portable memory devices are to be used in school. Any sensitive data should be protected by 2 levels of security e.g. encrypted vault and encrypted file with separate passwords. Sensitive data i.e. anything with a child's name on it, should never be attached to the school learning platform.
- Only school equipment is to be used on the school network and internet system. Personal laptops and other mobile devices including 3G/4G mobile phones are not to be connected to the school system. All Internet use should be appropriate to staff professional activity or to student's education.

However, please note that:

- The school's computing system may be used to follow legitimate private interests, providing school use is not compromised.
- 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 and social networking is not allowed.

Staff should sign a copy of the Acceptable Use Policy and return it to the Headteacher.
All Children at Holtsmere End Junior School must agree to use all equipment with respect and safely.

How are complaints regarding Internet use handled?

Prompt action is required if a complaint is made. The facts of the case need to be established, for instance whether the issue has arisen through Internet use inside or outside school. Transgressions of the rules could include minor as well as the potentially serious and a range of sanctions will be required, linked to the school's behaviour policy.

- Responsibility for handling incidents are given to senior members of staff;
- Parents and pupils will need to work in partnership with staff to resolve issues;
- As with drugs issues, there may be occasions when the police must be contacted. Early contact will be made to establish the legal position and discuss strategies;
- A pupil may have e-mail, Internet or computer access denied for a period of time depending on the nature of the incident.

How is parents' support enlisted?

Internet use in pupils' homes is increasing rapidly. With the lockdown, and Year 6 accessing Google Classroom for homework, the children will be more than likely accessing Remote Learning from home. Unless parents are aware of the dangers, pupils may have unrestricted access to the Internet. The school may be able to help parents plan appropriate, supervised use of the Internet at home.

- A careful balance between informing and alarming parents is maintained;
- As and when needed, demonstrations and practical IT sessions for parents are organised to encourage a partnership approach;
- Joint home / school guidelines on issues such as safe Internet use will be established and literature from trusted child safety partners will be passed to parents.

Communication and Collaboration

E-mail

E-mail is now an essential means of communication within education and in the wider world.

- Pupils need to use e-mail as part of the National Curriculum 2014 Curriculum.
- Pupils in KS2 are exposed to the principal on emails through the Curriculum. Where through their time at Holtsmere they are exposed to emailing several times in units of work they complete.
- All children are aware that e-mails sent through the school system are filtered.
- Children are made aware that in-coming e-mail is regarded as public. Received e-mail may be examined and could, for example, be pinned to a notice board for collection by pupils;
- Pupils in KS2 are allowed to access personal e-mail from the school system; and are taught to use it responsibly. A wide range of rapidly developing communications technologies have the potential to enhance learning.

When using communication technologies, the school considers the following as good practice: The official school email service may be regarded as safe and secure and is monitored. Users should be aware that email communications are monitored. Staff and students / pupils should therefore use only the school email service to communicate with others when in school, or on school systems (e.g. by remote access).

- Users must immediately report to the nominated person – in accordance with the school policy, the receipt of any communication that makes them feel uncomfortable, is offensive, discriminatory, threatening or bullying in nature and must not respond to any such communication.
- Any digital communication between staff and students / pupils or parents / carers (email, chat, VLE etc) must be professional in tone and content. These communications may only take place on official (monitored) school systems. Personal email addresses, text messaging or social media must not be used for these communications.
- KS2 will be provided with individual school email addresses for educational use

Profiles

Online profiles need to be discussed with children as part of their e-safety training. Children are made aware of the dangers in releasing personal information and are taught to assess risk. Children are made aware that once something is posted on the internet it is very difficult to remove (digital footprint) and they are taught to keep their information safe. Children may create online profiles and avatars in secure places e.g., school blogs.

Publishing

At Holtsmere End we recognise the exciting opportunities that publishing online presents. By publishing work online, children are given a fantastic opportunity to gain a world-wide audience for their work. We want to encourage this but to also encourage responsible use.

- Copyright is always respected.
- Author's own work is always recognised.
- Approval is always sort from an adult before uploading to the web.
- Public chat rooms are not allowed in school; however, children may use managed notice boards and discussion groups.
- Children's images should only be shared after seeking permission from an adult and should be checked against parental permissions list.

Video Conferencing

This is becoming a widely recognised and used educational tool. It allows more personal communication and collaboration but must always be used responsibly and safety.

- Conferencing and webcams may only be used when a member of the teaching staff is present and has given their permission.
- A safe portal must be used.
- When not in use the webcam or recording equipment must have lens cap closed or be disconnected.
- Only children with permission to share their image should be included in a webcam broadcast.

At Holtsmere End Junior School we have a fantastic website that we hope to publish work of a high standard. Our web site celebrates pupils' work, promotes the school, informs parents of up and coming events, enables them to read school policies and can be used to publish resources for projects or homework. It is also used to communicate with parents current and prospective. As the school's website can be accessed by anyone on the Internet, the security of staff and pupils are considered carefully.

- Home information or individual e-mail identities are not published.
- Only pupils who have permission to use their images are to have photographs published to the website.
- Full names will not be used anywhere on the Web site.
- Children's names will not be placed next to visual media.
- All publishing rules apply (copyright, authors recognition, teacher's permission needed before publishing).

Health and safety (see also health and safety policy)

The school is aware of the health and safety issues involved in children's use of ICT and computing.

- All fixed electrical appliances in school are tested by a LA contractor every five years and all portable electrical equipment in school is tested by an external contractor every twelve months. It is advised that staff should not bring their own electrical equipment in to school but if this is necessary, then the equipment must be PAT tested before being used in school.

- Damaged equipment should be reported to the Technician, Computing Coordinator and Headteacher 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

- E-safety forms an integral part of the curriculum and the school's Digital Leaders will deliver further education through assemblies termly and parent presentations biennially.

Security

- The ICT and computing technician /coordinator will be responsible for regularly updating anti-virus software.
- Use of ICT and computing will be in line with the school's 'acceptable use policy'.

All staff, volunteers and children must sign a copy of the schools AUP.

- Parents will be made aware of the 'Acceptable Use Policy' at school entry.

Skills and Progression Ladders

Computing Progression N.C. Statements KS2 Year 3

	Computer Science				Information Technology		Digital Literacy
Statement	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller part	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 concern about content and contact.
Outcome	Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Their design shows that they are thinking of the desired task and how this translates into code. Children can identify an error within their program that prevents it following the desired algorithm and then fix it.	Children demonstrate the ability to design and code a program that follows a simple sequence. They experiment with timers to achieve repetition effects in their programs. Children are beginning to understand the difference in the effect of using a timer command rather than a repeat command when creating repetition effects.	Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, repetition and use of timers. They make good attempts to 'step through' more complex code in order to identify errors in algorithms and can correct this. e.g. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately	Children can list a range of ways that the Internet can be used to provide different methods of communication. They can use some of these methods of communication, e.g. being able to open, respond to and attach files to emails using 2Email. They can describe appropriate email conventions when communicating in this way.	Children can carry out simple searches to retrieve digital content. They understand that to do this, they are connecting to the internet and using a search engine such as Purple Mash search or internet-wide search eng	Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question), using software such as 2Graph. Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.	Children demonstrate the importance of having a secure password and not sharing this with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure. They understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as 2Email in Purple Mash. They know more than one way to report unacceptable content and contact

Computing Progression N.C. Statements KS2 Year 4

	Computer Science				Information Technology		Digital Literacy
Statement	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	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.
Outcome	When turning a real-life situation into an algorithm, the children's design shows that they are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition. Children make more intuitive attempts to debug their own programs.	Children's use of timers to achieve repetition effects are becoming more logical and are integrated into their program designs. They understand 'IF statements' for selection and attempt to combine these with other coding structures including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information while a program is executing, they are able to use and manipulate the value of variables. Children can make use of user inputs and outputs such as 'print to screen'. e.g. 2Code.	Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'IF' statements, repetition and variables. They can trace code and use step-through methods to identify errors in code and make logical attempts to correct this. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.	Children recognise the main component parts of hardware which allow computers to join and form a network. Their ability to understand the online safety implications associated with the ways the internet can be used to provide different methods of communication is improving.	Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level.	Children are able to make improvements to digital solutions based on feedback. Children make informed software choices when presenting information and data. They create linked content using a range of software such as 2Connect and 2Publish+. Children share digital content within their community, i.e. using Virtual Display Boards.	Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact

Computing Progression N.C. Statements KS2 Year 5

	Computer Science				Information Technology		Digital Literacy
Statement	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	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.
Outcome	Children may attempt to turn more complex reallife situations into algorithms for a program by deconstructing it into manageable parts. Children are able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code.	Children can translate algorithms that include sequence, selection and repetition into code with increasing ease and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures. They are combining sequence, selection and repetition with other coding structures to achieve their algorithm design	When children code, they are beginning to think about their code structure in terms of the ability to debug and interpret the code later, e.g. the use of tabs to organise code and the naming of variables.	Children understand the value of computer networks but are also aware of the main dangers. They recognise what personal information is and can explain how this can be kept safe. Children can select the most appropriate form of online communications contingent on audience and digital content, e.g.2Blog, 2Email, Display Boards.	Children search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains.	Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.	Children have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.

Computing Progression N.C. Statements KS2 Year 6

	Computer Science				Information Technology		Digital Literacy
Statement	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.
Outcome	Children are able to turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs. Children test and debug their program as they go and use logical methods to identify the cause of bugs, demonstrating a systematic approach to try to identify a particular line of code causing a problem.	Children translate algorithms that include sequence, selection and repetition into code and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures, including nesting structures within each other. Coding displays an improving understanding of variables in coding, outputs such as sound and movement, inputs from the user of the program such as button clicks and the value of functions	Children are able to interpret a program in parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole.	Children understand and can explain in some depth the difference between the internet and the World Wide Web. Children know what a WAN and LAN are and can describe how they access the Internet in school	Children readily apply filters when searching for digital content. They are able to explain in detail how credible a webpage is and the information it contains. They compare a range of digital content sources and are able to rate them in terms of content quality and accuracy. Children use critical thinking skills in everyday use of online communication	Children make clear connections to the audience when designing and creating digital content. The children design and create their own blogs to become a content creator on the Internet, e.g. 2Blog. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.	Children demonstrate the safe and respectful use of a range of different technologies and online services. They identify more discreet inappropriate behaviours through developing critical thinking, e.g. 2Respond activities. They recognise the value in preserving their privacy when online for their own and other people's safety.

Staff Acceptable Use Agreement & Code of Conduct

Full Name …… (print)

School/…… Signature

……Date ……

ICT (including data) and the related technologies such as email online services (including data sharing), the internet and mobile devices are an expected part of our daily working life in school. This policy is designed to ensure that all staff are aware of their professional responsibilities when using any form of ICT. All staff are expected to sign this policy and follow it at all times. Any concerns or clarification should be discussed with the school headteacher

1. I acknowledge that ICT includes a wide range of systems, including (but not exclusively) mobile phones, digital cameras; email, online cloud services and social networking. ICT use may also include personal devices when used for school business.
2. I will only use the school's data sharing/ email / Internet / Intranet / Learning Platform and any related technologies for professional purposes or for uses deemed 'reasonable and appropriate' by the Headteacher or the Governing Body.
3. I will comply with the ICT system security protocols and not disclose, publish or share any data or passwords provided to me by the school or other related authorities. I will not use personal accounts for work-based activities in any way.
4. I will ensure that all electronic communications with students and staff are compatible with my professional role.
5. I will not disclose my own personal details, such as mobile phone number and personal email address, to students. This also includes sharing school-based data in systems not endorsed by the trust.
6. Staff must not for any reason become digitally associated (e.g. 'friends / buddies') of students either internally or externally on any form of social networking site.
7. I will only use approved, secure email system(s) for any school business.
8. I will ensure that personal data (such as data held on MIS software or other official systems) is kept secure and is used appropriately, whether in school, taken off the school premises or accessed remotely. Personal data, concerning staff and students, can only be taken out of school or accessed remotely, when authorised by the Headteacher or the Governing Body. Personal or sensitive data taken off site must be encrypted. Sensitive data must not be shared or sent to external parties, without explicit permission from the Headteacher.
9. I will not install any hardware or software on school the site or provided equipment without permission.
10. I understand the risks and will not try to upload, download or access any materials which are illegal or inappropriate or may cause harm or distress to others; nor will I try to use any programmes or software that might allow me to bypass the filtering / security systems in place

which specifically prevent access to such content. 11. By using IT facilities or by connecting equipment (own/school provided) to school systems you agree to the trust using filtering and monitoring software to ensure child safety and learning is focused upon.
12. If using school owned devices, I understand that the above may also be enabled if the device is taken off site.
13. I will not browse, download, upload or distribute any material that could be considered offensive, illegal or discriminatory, or bring the organisation into disrepute.
14. Multimedia (including images/video) of students and/or staff will only be taken, stored and used for professional purposes in line with school policy and with written consent of the parent, carer or staff member. Images will not be distributed outside the school network without the permission of the parent/ carer, member of staff or the Headteacher.
15. I understand that all my use of the Internet and other related technologies can be monitored and logged and can be made available, on request, by the Headteacher. 16. I will respect copyright and intellectual property rights and I will adhere to these and data protection laws.
17. I will ensure that my online activity, both in school and outside school, will not bring my professional role into disrepute. 18. I will support and promote the school's E-safety Policy and help students to be safe and responsible in their use of ICT and related technologies.
19. I understand this forms part of the terms and conditions set out in my contract of employment. I will only use the official school provided systems for sharing resources and data. I agree to not share such data outside of the closed systems provided.
21. I will ensure that I will implement robust security, following school guidance in ensuring the protection of data online.
22. I will not share or communicate privately with students using school provided or any other online communication method. I agree to use only the systems provided. 23. I understand the need to report any suspected child protection or data breech concerns directly to the headteacher.
24. I understand that all use of school systems will be logged, and I will be subject to regular child protection checks.
25. I understand that all files / data produced for work purposes, remains the intellectual property of the trust.
26. The school remains the right to terminate access to digital services on the grounds of child protection or part of data preservation protocols.