Errington Primary School

This policy has been subject to an Equality Impact Assessment by:

Author/Reviewer:

SLT/EET:

Governors/Trustees:

Could/does the policy or procedure have a negative impact on one or more of the groups of people covered by the protected characteristics of equality? If so, how can this be changed or modified to minimise or justify the impact?

Could/does the policy have the potential to create a positive impact on equality by reducing and removing inequalities and barriers that already exist? If so, how can these be maximised?

Computing Policy

2021-22

The vision for Computing

in supporting 21st Century Learning

Our Computing vision at Errington Primary is for the children to become confident, creative, independent users of ICT who have the skills and abilities to contribute successfully to an ever-changing 21st Century society. We aim to provide these children with safe, secure environments in which to learn, in both the real and virtual world.

Computing aims to prepare pupils to participate in a rapidly changing world in which we live. Other activities within school and beyond are increasingly transformed by access to varied and developing technology.

We recognise that computing is an important tool in both the society we live in and in the process of teaching and learning. Pupils use different tools to find, explore, analyse, exchange and present information responsibly and creatively. They learn how to employ computing to enable rapid access to ideas and experiences from a wide range of sources.

Critical to the school's vision is the intention to ensure that Computing:

- is well managed in terms of the effective use of funding to provide, sustain and develop high quality Computing environments
- is used effectively and securely to support the recording, interrogation and sharing of data to support pupil achievement.
- Is used as a tool to support teaching, learning and management across all areas of the curriculum
- is used to support effective communication across the school community and with other agencies.
- is used, when appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SEN and disabilities
- To maximise the use of computing in developing and maintaining links between other schools, the local community including parents and other agencies.
- provides children and staff with access to Computing resources in a safe and secure way.

LEADERSHIP AND MANAGEMENT

The ICT Team	Roles and responsibilities	
Title	Named person	Key responsibilities
Headteacher	Sarah Rule	• Strategic leadership of ICT and Computing across the school. • Oversees the Computing curriculum. • Has a vision for creative Computing and ICT development. • Has an overview of Computing and uses of ICT across the school. • Facilitates innovation in Computing and ICT • Allocates funds to Computing • Monitoring teaching and learning in Computing • Regularly review Computing policies.
Computing Subject Leader	Anne Pinder	• Leadership of Computing across the school. • Has an overview of Computing across the whole school. • Regularly reviews Computing policies. • Co-ordinates assessment of Computing. • Monitoring teaching and learning in Computing. • Logs ICT technical problems and liaises with Computing support technicians. • Turn off computers during holiday periods. • Attends Computing subject leader updates. • Attends cluster subject lead updates. • Attends relevant Computing training and disseminates information. • Audit and analyse pupil confidence in Computing. • Audits staff training needs in Computing • Delivers or co-ordinates staff training in Computing.
E-Safety Officer	Sarah Rule/ Angela Walker	• Attends meetings and training regarding e-safety. • Co-ordinates e-safety lessons by external agencies for KS2 classes. • Co-ordinates regular e-safety training for staff. • Co-ordinates regular e-safety training for parent/ guardians. • Provides e-safety information for parents/guardians. • Informs staff about e-safety week activities/ resources.
School Business Manager	Angela Walker	• Attends team meetings regarding Computing when necessary. • Manages Computing budget. • Liaises with school technician regarding purchasing. • Manages all SIMS and FMS programs. • Ensures new children fill in acceptable use forms. • Ensures new staff fill in acceptable staff use forms.
Learning Practitioners	**Teachers** Claire English Holly Matthews Allan Fishpool Anne Pinder Michelle Dardeshi Teri Edwards Jenna Hunt Angela Jennings	• Uses ICT for planning and assessment purposes. • Produces exciting interactive resources using ICT. • Puts planning and assessment on school share point. • Audits and selects appropriate ICT software for curriculum subjects. • Follows Computing curriculum for their year group ensuring all areas are taught and assessed. • Manages and promotes year group Share Points.
Learning Practitioners	**Teaching Assistants** Clare Nicholas Linda Milne Sarah Smart Jane Graham Jane Jerz Emma Gillan	• Uses ICT for planning and assessment purposes when necessary. • Produces interactive teaching resources using ICT when necessary. • Uses ICT tor teaching and learning. • Attends Computing training relevant to their roles and responsibilities when necessary.

LEADERSHIP AND MANAGEMENT

The ICT Team	Roles and responsibilities	
Title	**Named person**	**Key responsibilities**
School Council	School Council representatives	• Share views about Computing in school. • Use ICT to make posters, do minutes etc.
Digital Ambassadors/Tech Support	Two children from each class	• Promote a love of Computing within their classes and the wider school community. • Support other pupils when accessing hardware and software within their classes. • Shares views about Computing in school.
E-Safety Champions	2 children from year 6	• Identify posters suitable for different ages and share with teachers. • Talk to children in other classes about E-Safety • E-Safety assemblies.
Pupils	All pupils	• Use ICT in all relevant areas of the curriculum. • Use a range of ICTs across creative and stimulating experiences. • To use a variety of software confidently. • To use a variety of hardware confidently including: digital cameras, sound recorders etc. • Be confident users of ICT. • Use ICT safely. • Know and follow the school's procedures for e-safety. • Use ICT to enhance their learning in school and at home.
Parents/Carers	All Parents	• Ensure children are e-safe at home. (Parents are offered information and training on e-safety). • Encourage children to use ICT resources to support their learning at home e.g. Share Point,Abacus, Purple Mash, Time Tables Rock Stars, Reading Plus.
Inspire to Learn	Pauline Jackson	• Provide advice on the development of Computing in school. • Deliver staff training in school when necessary. • Deliver courses that can be accessed by individuals and groups of staff. • Provide specialist equipment for loan. • Support with e-Safety issues.
School Support Technician	TVC IT Team	• Sourcing and ordering ICT equipment, software and peripherals. • School visits when needed to solve technical difficulties. • Emergency technical support for teaching disruption e.g. whiteboard failure. • Adding and removing users from network. • Adding drivers to teacher laptops and network. • Updating and monitoring virus protection. • Technical support of curriculum and management systems in school. • Yearly review of SLA.
Children's Services		• Monitors e-safety in the authority. • Supports schools in writing e-safety and safeguarding policies. • Provides training for staff relating to e-safety. • Provides training for parents on e-safety. • Provided training for children on e-safety.

Safeguarding

See separate E-Safety Policy, Council guidelines, Remote Home Learning Policy and Acceptable Use Policies.

THE COMPUTING CURRICULUM

Statement of intent:

Errington Primary School believes Computing should be at the heart of all aspects of school life. Computing is taught in a creative, cross-curricular way. We aim to give children access to a range of purposeful, enjoyable experiences and the opportunity to become creative, confident users of ICT, who can use ICT in a way that keeps themselves and others safe. We envisage ICT learners who are motivated and willing to experiment, who will become sufficiently skilled to thrive in an ever-changing 21st century digital world.

Key Principles:

- *Experiences should be purposeful; links to life in the real world should be made clear.*
- *Experiences should be enjoyable and children should be motivated.*
- *Experiences should be challenging but support should be provided for less able pupils.*
- *The Computing curriculum should be a balance of teacher led and child led 'personalised' learning.*
- *There should be a continuity of experience throughout the school both within and among year groups*
- *There should be a systematic progression through key stages 1 & 2*
- *All Computing experiences should be appropriate to the learners' needs, building on previous experiences and the child's Computing capability.*
- *Children should have access to a range of Computing capabilities: communicating information, handling data, coding and modelling. However, there should be an emphasis on coding throughout.*

- *Children should understand how computer systems, including the internet work.*
- *Integration of capabilities across different areas of focus should be evident where possible.*
- *Children should experience a range of Computing resources- software and hardware.*
- *Cross curricular links are exploited where appropriate*
- *Children's experiences are monitored and evaluated*
- *Children should have independent access to hardware and software but should also have the opportunity to experience a range of working styles, including individual, pairs or small groups*
- *The curriculum should be flexible, changing as a result of new technologies and developments.*
- *Teachers should have high expectations of all children in Computing.*
- *Staff skills and knowledge should be kept up to date*

EARLY YEARS FOUNDATION STAGE

Technology is no longer a strand under the new statutory curriculum for Early Years 2021 however here at Errington we recognise the importance of developing children's knowledge of technology and continue to ensure ICT is taught as part of our Errington curriculum within the foundation stage. The children are no longer assessed against a Technology Early Learning Goal at the end of reception.

The children are provided with opportunities to explore a range of different technologies during independent exploration and adult led focuses. The children are provided with access to different technologies that are age appropriate and build on skills. Teachers use technology to support teaching as appropriate and encourage the children to participate and have a go.

THE COMPUTING CURRICULUM- KEY STAGE 1 AND 2

Statutory Requirements

The statutory requirements for the Computing curriculum are set out in the National Curriculum. The National Curriculum sets out a clear, full and statutory entitlement to learning for all pupils.

Purpose of study

A high-quality computing education equips pupils to understand and change the world through logical thinking and creativity, including by making links with mathematics, science, and design and technology. The core of computing is computer science, in which pupils are taught the principles of information and computation, and how digital systems work. Computing equips pupils to use information technology to create programs, systems and a range of media. It also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- 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.

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Subject content

Key stage 1

Pupils should be taught to:
- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- use technology safely and respectfully, keeping personal information private; know where to go for help and support when they have concerns about material on the internet

- recognise common uses of information technology beyond school.

Key stage 2

Pupils should be taught to:
- 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
- use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour
- 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.

Schemes of Work

The Computing curriculum at Errington Primary school follows the statutory requirements of the National Curriculum. The ICT curriculum is a creative curriculum where teachers plan exciting projects for the children to work on which emphasise the links between other subject areas. Teachers use the Purple Mash Computing Scheme of Work to support their planning.

21st Century learning/21st Century resources

To ensure that the children develop the skills required for the 21st Century the Computing subject lead attends Computing updates and conferences to review developments in Computing as they occur. Other members of staff complete training at Inspire 2 Learn or within school. Software and hardware provision and developments are reviewed each year. When new hardware

or software is introduced staff are given time to familiarise themselves with it and training is provided when necessary. Children are provided with a range of online learning environments to support and enrich their learning both in school and at home. These include:

- Office 365- Year Group Share Points- resources to support the children with their home learning and a place to celebrate the children's learning in school and at home.
- Purple Mash- This provides the children with a range of computing tools and resources alongside cross-curricular activities.
- Abacus Maths- This is the Mathematics scheme followed throughout the school. Games are resources are regularly added to the children's online areas to support the learning taking place in class.
- Times Tables Rock Stars- This software allows the children to practise and improve their multiplication and division tables in a fun, engaging way.

Breadth, balance and range

Children experience all the strands of Computing in each year group: communicating information, handling data, coding and modelling. Where possible these strands should overlap and link within projects. ICT work is developed around the topics covered in other areas of the curriculum and the links between Computing and other subject areas are clear. The Computing curriculum should be a balance of teacher led and child led 'personalised' learning. Children experience a range of ICT resources- software and hardware.

Equality of access to 'quality first teaching'

To ensure quality of access to 'quality first teaching' teacher's skills in Computing are regularly updated. As new developments in Computing occur whole school training is provided through the Inspire 2 Learn or within school. The focus of training for each year is reflected in the Computing action plan. A yearly staff confidence in Computing is completed by all staff and from this individual or group needs are identified. Support and training is then provided to individuals or groups in school, or through courses at Inspire 2 Learn. Planning is reviewed by the Senior Leadership Team and the Computing Subject Lead, as are examples of children's work.

Inclusion

Computing can have a positive effect on children who find other areas of the curriculum challenging. In Computing these children often achieve at a higher level; they are more confident; work 'looks' better and often behaviour will improve.

We recognise computing offers particular opportunities for pupils with special educational needs and gifted and/or talented children and/or children with English as an additional language.

Computing can cater for the variety of learning styles which a class of children may possess.

Using computing can:

- increase access to the curriculum
- raise levels of motivation and self esteem
- improve the accuracy and presentation of work
- address individual needs

We aim to maximise the use and benefits of ICT as one of many resources to enable all pupils to achieve their full potential. If the situation arises, the school will endeavour to provide appropriate resources to suit the specific needs of individuals or groups of children.

Reading Plus is used daily by children from Year 2-6. Children are assessed regularly and follow a personalised reading programme.

Nessy and Dynamo Maths are used daily by children who require additional support in reading/spelling or maths.

Equal Opportunities

It is our policy will ensure to meet equal opportunities by:

- providing curriculum materials and software which are in no way class, gender or racially prejudice or biased
- monitoring the level of access to computers in the home environment to ensure no pupils are unduly disadvantaged

QUALITY TEACHING AND LEARNING

Teacher's planning is differentiated to meet the range of needs in any class including those children who may need extra support, those who are working at expected and those working at greater depth for children of their age.

A wide range of styles are employed to ensure all children are sufficiently challenged:

- Children may be required to work individually, in pairs or in small groups according to the nature or activity of the task.
- Different pace of working
- Different groupings of children - groupings may be based on ability either same ability or mixed ability.
- Different levels of input and support
- Different outcomes expected

How do teachers design learning journeys?

Teachers begin their Computing learning journeys by using Purple Mash lesson plans and/or linking areas of the Computing curriculum to the topics they are teaching, At the beginning of a unit of work, and possibly at intervals during the unit, children should have 'Explore and Discover' sessions. This will allow the children to have the opportunity to explore pieces of software etc. It will also give the teacher the opportunity to observe where the child already is an their Computing journey.

Creative and Challenging experiences for children – 'real-life', curriculum integration, projects

Computing at Errington Primary is time-tabled. Classes have a weekly session in the Computer Suite. In addition to this there is a trolley of I-Pads and two trolleys of laptops which classes can use on specific days/times or use for a block of sessions. This gives teachers the opportunity to plan longer term cross-curricular projects based around Computing. The best projects will cover a few strands of Computing capability at once. It is a good idea to try to root these in 'real-life' situations where possible to allow the children to understand the role that ICT plays in real life.

Learning styles

Through the year children should have the opportunity to work with Computing in different situations. This should take the form of 'explore and discover' sessions where the children work independently and in pairs to explore new software; teacher led sessions where the key functions of software and skills are taught; and project sessions where children work on group or individual projects- leading their own learning. Children should also have time to analyse their own learning, and support others through checking work and offering advice for improvements.

<u>EVALUATION</u>

Ensuring quality and equality of experience

This is done through the monitoring of teacher's planning, collecting samples of children's work and analysis of pupil confidence questionnaires.

Monitoring and review

Teachers should be encouraged to review their Computing teaching each year by looking at their planning; looking at samples of children's work and learning journeys; and looking at their assessment. This should enable them to decide whether they spent too long on some strands and not enough time on others; whether they need to adapt their planning for the next year etc. Portfolios of work are collected from each year group to demonstrate the breadth and quality of the Computing learning throughout school.

Pupil voice supporting curriculum review

At the end of a project children could be encouraged to complete a questionnaire on their feelings about the project. This can then be used to inform a teacher's planning for the following year. Pupils also fill in pupil confidence questionnaire. These are analysed by the subject lead and the findings reported to the teachers. Teachers can then adapt their planning and teaching appropriately to meet the needs of the pupils.

ENGAGEMENT AND UNDERSTANDING

Governors

The Computing Policy is shared with, and approved by, the governors.

Parents

Parents are invited to E-Safety training and are sent information regarding E-Safety. They are encouraged to play an active part in keeping their children safe. They are required to read and sign an AUP for their children. Children are encouraged to share their log-ins for online environments with their parents.

Each child has a personal email address which pupils and parents can use to communicate with staff. Each year group has a Share Point area as part of the Office 365 suite. Teachers use

these to provide home learning opportunities for their classes. Parents are expected to support their children in the use of these areas.

COVID 19- In case of local lockdowns or 'bubbles' being required to isolate, home learning will be accessed via the year group Share Point. Face to face teaching will take place via Teams. Parents will support their children in the use of these.

TEACHING AND LEARNING

Statement of intent:

Errington Primary School believes ICT should be at the heart of all aspects of school life. ICT should be used across the curriculum to enhance teaching and learning whenever possible.

ICT as a Teaching Tool

ICT is used as a teaching tool in all areas of the curriculum. All teachers have a kit of ICT resources in their classroom to use in preparing and delivering lessons. These include: a teacher laptop, desktop computer, Smartboard, camera, I-Pad and access to the internet and a range of on-line teaching environments including Abacus, Purple Mash, Times Table Rock Stars, Reading Plus, Marvellous Me and BBC Schools. In addition to these cameras, video cameras, robots, microphones etc are also available.

ICT Across the Curriculum

At Errington Primary School ICT is used throughout the curriculum in a creative way. The use of ICT can enhance teaching and learning and offer stimulating and exciting new experiences to the children. Through the use of ICT, children can experience 'real-life' situations such as producing a newspaper, website or a video of a news report or advert. These experiences allow the children to become authors, editors or reporters with a real sense of audience. ICT across the curriculum should be evident in the teachers' planning.

ASSESSMENT

Statement of intent:

The school is committed to develop its assessment of Computing capability. This takes place regularly and is used to inform the future learning needs of the children. ICT is to be used as an aid to assessment across the curriculum.

Learning Journeys

Throughout their Computing Learning Journeys children should be encouraged to look at their own work and that of others critically and be able to suggest ways that it can be improved. They should be involved in compiling success criteria when evaluating their own work and that of others. Pupil self-assessment and peer assessment may be used as part of a pupil's learning journey.

Assessment of Computing capability

Pupil's achievement in Computing is assessed using the Purple Mash assessment grids. At the end of each Computing project the children's progress is recorded.

RESOURCES

Statement of intent:

Errington Primary school aims to provide a learning environment which supports the needs of children growing up in the 21st Century. We will teach Computing as a basic skill which we will integrate into the full curriculum. Children will have a growing diversity of experiences using I.C.T equipment and become increasingly confident to use it in an ever-changing and developing technological world.

SPACES	FUNCTION	RESOURCES
EYFS	Teaching and Learning	Wireless access Interactive whiteboards Teacher desktop Touchscreen computer Network computers Video camera/ digital camera Microphone/ voice recorder Recordable postcards Talking photo album Remote bug set Single button car Beebot

		Mini-hovercraft Hand-held metal detector Simple remote control vehicle Walkie-talkies Karaoke Cash register Talking photo frame
KS1 Classrooms	Teaching and Learning	Wireless access Interactive whiteboard Teacher desktop Networked desktops Bee-Bot I-Pad Trolley (also to be used by KS2)
KS2 Classrooms	Teaching and Learning	Wireless access Interactive whiteboard Teacher desktop Networked desktops Pro-Bots/Lego Mindstorms 3 class laptops 2 Laptop trolleys
Computing Suite	Teaching and Learning Area	Wireless access Smartboard 30 desktop computers
Head teacher and Business Manager Offices	Staff Admin	Wireless access SIMS Computer Head teacher Computer Head teacher laptop Colour Photocopier/scanner
Staffroom	Staff Admin	Wireless access Network points Colour printer and scanner

HEALTH AND SAFETY

DEVICE	BEST PRACTISE
Computers and Peripherals	Ensure that all electrical installations are carried out by a qualified electrician. All equipment must be of a reliable standard and should be checked annually by qualified electricians.

	Ensure that no cabling is trailing on the floor. Ensure that seating is suitable for the size of pupils using it. Ensure that benching is sturdy enough to withstand the weight of the hardware and additional equipment stored on it. Follow health and safety guidance regarding the height, position and distance of monitors and keyboards from pupils when working. Ensure that pupils don't take drinks to tables where they are working with electrical equipment such as cameras, videos, laptops, computers or data logging equipment.
WIFI	On the basis of current evidence, the HPA (Health Protection Agency) does not consider there to be a problem with the safety of WLAN. If an explicit statement that exposures are within the ICNIRP guidelines is required, this would have to be obtained from the manufacturers; however, it could be argued that this is implicit in the CE marking.
Projectors	It must be made clear to all users that no one should stare directly into the beam of the projector When entering the beam, users should not look towards the audience for more than a few seconds Users should be encouraged to keep their backs to the projector beam when stood in the beam Children should be supervised at all times during the operation of the projector
Computers and Laptops	All trailing leads must be secure. Laptops should have their PAT (Portable Appliance Testing) certificate renewed every 6 months. Any work to modify, repair or fit electrical equipment must be carried out by a competent and qualified electrician.
Programmable Toys	If you are working with programmable toys such as floor turtles, create a clearly defined working area; use markers or seating to define the workspace to ensure that pupils do not accidentally fall over equipment.

Green Working and Learning

PRINTING	Card from packaging is recycled.
	Documents are put onto the Share Point for sharing when possible to reduce paper and ink wastage.
	Staff are encouraged to print in black whenever possible. Colour should only be used for best and display purposes.
	When using printers, scanners, photocopiers and faxes: 'think before you print'
	Where possible print on duplex.
	Re-use single side printer paper before recycling.
Computers and Smartboards	Users should switch off equipment after use – unless of course it is to be immediately used by another user.
	Ensure monitors, projectors, peripherals and their mains adaptors are shut off when the base unit is switched off and chargers are switched off when they are not charging.
	Power management capability for your ICT equipment must be present and enabled so that computers hibernate at sensible times. (A desktop PC may use over 40W in normal use but less than 2W in hibernate mode).
Projectors	Projectors should be switched off when not in use to save bulbs and electricity.

TECHNICAL SUPPORT

Current status: Technical support through TVC IT team

Process for recording problems: Problems reported via e-mail to it.support@tvc.ac.uk

Emergencies will be reported by phone by the Computing Subject Lead or office staff

Process for addressing problems: Technician visit when needed plus telephone, email and remote support available anytime. If possible, problems will be resolved using remote access. For problems which prevent a teacher from using ICT to deliver the curriculum, e.g. whiteboard/ projector problems, on-site support will be available that day. Computing Subject Lead will check these to see if the problem can be addressed in school first.

PROCESS FOR AUDITING THE QUALITY OF SPACES AND RESOURCES

- The Computing Subject Lead and Head teacher will audit the quality of Computing spaces yearly and make suggestions for improvements. This will also inform future purchasing needs.
- The Computing Subject Lead and Head teacher will audit hardware used around school each year. Computers that are beyond repair will be disposed of for recycling. Hardware not being used will be re-distributed or disposed of.
- The Computing Subject Lead and Head teacher will audit software yearly and identify any future purchasing needs.

PROCESS FOR MEASURING IMPACT

Computing is reviewed each year through the S.D.P and the Computing Plan. Actions are set for Computing each year, and milestones to achieve each action planned. These are reviewed each year and new actions set.

ENSURING VALUE FOR MONEY WHEN PURCHASING RESOURCES

To ensure value for money when purchasing resources items are tested by staff and pupils prior to any bulk purchases. All staff are made aware of any new purchases and relevant training provided as soon as possible. Resources that are expensive and used rarely are loaned from the Inspire 2 Learn.