Royal Free Hospital Children's School
ICT Policy
June 2024

CONTENT

Outline of needs

The Royal Free Hospital Children's School caters for children who have physical or mental health needs. The physical medical needs relate to children who are in hospital for a short stay or children who have a medical condition whose treatment makes attendance at school difficult. The mental health problems may be severe anxiety disorder, trauma, chronic school anxiety or phobia, parental separation anxiety, depression, self-harm or eating disorders. We offer alternative and flexible options, such as dual roll education with their mainstream school or full-time hospital education, which may at times be more appropriate to a pupil's physical or mental health needs. These pupils follow, as closely as is appropriate and practical, the same curriculum as their peers.

Statement of aims

Information and Communications Technology (ICT) prepares pupils to participate in a rapidly changing world in which work and other activities are increasingly transformed by access to varied and developing technology.

We recognise that ICT is an important tool in society and in the process of teaching and learning. Pupils use ICT to find, explore, analyse, exchange and present information responsibly, creatively and with discrimination. They learn how to employ ICT to gain rapid access to a wide range of ideas and

experiences, enabling them to make informed judgements about when and where to use ICT to best effect and to also consider the implications for its use at home and work; now and in the future.
Our vision is for pupils to become confident users of ICT so they can develop the skills, knowledge and understanding which will enable them to use ICT resources effectively and as powerful tools for learning.

At the Royal Free Hospital Children's School we aim to -

- Contribute to pupils' experience of a broad and balanced curriculum
- Use ICT as a tool to support learning across the curriculum
- Use ICT as a tool to support access to the curriculum including remote learning
- Provide pupils with opportunities to develop their ICT capabilities in all curriculum areas
- Enrich and extend learning through the application of ICT
- Ensure ICT is used, as appropriate, to improve access to learning for pupils with a diverse range of individual needs, including those with SENDs
- Ensure pupils become autonomous users of ICT; selecting the appropriate ICT tools and acquiring independence, confidence and enjoyment from ICT activities
- Enable all pupils to have equal access to ICT and experience success in their work
- Help pupils understand the potentials and limitations of technology
- Integrate ICT into everyday working and leisure time
- To contribute to pupils' personal, moral, spiritual, cultural, social and emotional development

Meeting the requirements of the National Curriculum

Purpose of study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing 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.

National Curriculum 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

Programmes of Study

ICT is a core subject in the National Curriculum. In both Primary and Secondary lessons, ICT is an integral part of each curriculum area but, on occasions, may be taught as a discrete subject. The school has supported entry to Computer Science in the past.

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
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

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
- 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 concerns about content and contact

Key stage 3

Pupils should be taught to:

- design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems
- understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem
- use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions
- understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal]
- understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems
- understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits
- undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users

- create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability
- understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns

Key stage 4

All pupils must have the opportunity to study aspects of information technology and computer science at sufficient depth to allow them to progress to higher levels of study or to a professional career.
All pupils should be taught to:

- develop their capability, creativity and knowledge in computer science, digital media and information technology
- develop and apply their analytic, problem-solving, design, and computational thinking skills
- understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns

Planning

The methodology of teaching on the day is dictated by the composition and needs of the individual pupils being taught on the ward. Secondary planning for ICT within each subject is guided by the needs of the day pupils. When ICT (or Computer Science) is offered as a discrete subject (usually supported by a home school) pupils will be learning skills which can be transferred to other subjects and topics with relevance to everyday life. Contingency lessons are also planned for use with short-stay in-patient pupils.

Cross Curricular Themes and Skills

Cross-curricula dimensions provide important unifying areas of learning that help pupils make sense of the world. These include identity and cultural diversity, healthy lifestyles, community participation, enterprise, technology and the media, creativity and critical thinking.

The integration of ICT teaching in other curriculum areas

The integration of ICT into the curriculum contributes to teaching and learning in all subject areas. Teachers use software and hardware to present information visually, dynamically and interactively, so that pupils understand concepts more quickly. ICT enables pupils the opportunity to present their information and conclusions in the most appropriate way. Some software is generic and can therefore be used in several curriculum areas.

Literacy/English

ICT is a major contributor to the teaching of Literacy/English. Primary pupils' reading development is supported e.g. through talking stories and a variety of software which targets specific reading, grammar, typing and spelling skills. Secondary pupils develop their writing skills by communicating via Google Classroom. Pupils also learn how to improve the presentation of their work by using desktop publishing software.

Mathematics

Pupils use ICT in mathematics to collect data, make predictions, analyse results, and present information graphically. Interactive programs underpin the effective delivery of the curriculum.

Science

Software is used to animate and model scientific concepts, and to allow pupils to investigate processes which it would be impractical to do directly in the classroom. The Internet and digital video are used in Secondary lessons.

Personal, social, and health education (PSHE) and Citizenship

The Internet provides an opportunity to explore live global issues through reliable and up to date sources.

Teaching and learning styles

Our principle aim is to develop pupil's knowledge, skills and understanding in ICT. It is essential to use a variety of teaching styles and strategies to give pupils a range of experiences that cater for their different learning styles. Direct instruction is given on how to use hardware or software, to ensure acquisition of skills, and cross curricular activities allow individuals or groups of pupils to use ICT to help them progress in that subject.

Personalised learning

Teachers differentiate teaching and learning according to the needs of the pupils. This includes differentiation by resources, task, group, outcome, teacher intervention and teaching style. Another strategy is the deployment of a member of staff in the classroom when in-patient pupil numbers on the ward are very low.

The teacher will also have to consider individual needs as these present themselves on the day (e.g. cannot use their writing hand due to cannula insertion, or emotional upset due to pending treatment etc.).

ICT teaching is fully committed to the principles of inclusion and maximising the potential of all pupils. We have an ongoing commitment to review our provision, curriculum content, attitudes and expectations to ensure we address the school's Equality policies.

We recognise that pupils have a wide range of ICT abilities. This is especially true when some pupils have access to ICT equipment at home, while others do not. We take prior experience and achievements into consideration and aim to build on them. We provide suitable learning opportunities for all pupils by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways:

- Setting tasks which are open-ended and can have a variety of responses
- Setting tasks of increasing difficulty (not all pupils complete all tasks)
- Grouping pupils by ability and setting different tasks for each group
- Providing resources of different complexity that are matched to the ability of the child

We aim to maximise the use and benefits of ICT resources to enable all pupils to achieve their full potential. The school endeavors to provide appropriate resources to meet the specific needs of individual pupils, including a Teaching Assistant to provide 1:1 support.

We also recognise opportunities ICT offers pupils with special educational needs and disabilities, gifted and/or talented pupils and /or pupils with English as an additional language.

Using ICT can:

- Increase access to the curriculum
- Raise levels of motivation and self esteem
- Improve the accuracy and presentation of work
- Address individual needs

Staff roles and responsibilities

There is no Subject Leader for ICT.

Health and Safety

We operate all ICT equipment in compliance with Health & Safety requirements.

- Staff and Pupils are encouraged to close the computers/laptops/chrome books down at the end of the working day and tidy up the workstation ready for the next working day

- Staff and Pupils are made aware of the correct way to sit when using the computer, the dangers of continuous use (e.g. eye/wrist strain etc) and the need to take regular breaks if they are spending any length of time on a computer
- Food and drink is not consumed near ICT equipment
- Staff are responsible for ensuring ICT equipment is stored securely, cleaned regularly and that pupils leave the computers clean and tidy after use
- Google Chrome books, Laptops, iPads, Kindles, digital cameras, cordless headphones and other ICT equipment are kept in a Lapsafe or iLuv Unit and are cleaned and returned after use
- All equipment is checked regularly by hospital technicians under the Electricity at Work Regulation 1989

Internet Safety

The school has acknowledged the need to ensure that all pupils are responsible and safe users of the Internet and other communication technologies.

- All pupils are expected to read, understand, sign and adhere to the Student Acceptable Use Policy and the 'Pupil Digital Rights' form
- All pupils are given "Internet Safety Advice" sheets when they start at the school
- All pupils are taught about Internet Safety as part of PSHE programme and a parental consent form is signed before Internet access on the ward is given
- In the classroom, an adult should always supervise pupils when they are accessing information via the Internet; during lessons and at break/lunch times. The service provider does filter information but staff are ultimately responsible for information accessed by pupils
- Although the school offers a safe online environment through filtered internet access we recognise the importance of teaching our pupils about online safety and their responsibilities when using communication technology

For a full account of The RFHCS policy see separate E-Safety policy and procedures (November 2018).

Involving parents

Parent(s)/Carer(s) of in-patient pupils are encouraged to become actively involved in the education of their child whilst they are in hospital by supporting them, at the bedside, with activities provided by the school or Play Specialists. Parents whose children are able but reluctant to join in classroom learning are encouraged to borrow a laptop/iPad to work on by the bed.

Parent(s)/Carer(s) of Day students attend regular progress review meetings

Monitoring and Assessment – including Assessment for Learning

ICT is not formally assessed. Teachers use observation, informal discussion, and pupil self-evaluation to monitor progress in ICT.

For a full account of The RFHCS policy see "Assessment, Recording and Reporting Policy"

Resources

We interpret the term 'information and communication technology' (ICT) to include the use of any equipment which allows users to communicate or manipulate information (in the broadest sense of the word) electronically e.g.

- Computers / laptops / iPads
- Interactive White board
- E Readers
- Exam Pen Readers
- Internet /Email
- Calculators
- Programmable toys
- Electronic musical instruments
- Audio and video recorders

- Digital cameras
- Visualiser
- Telephone, scanners and photocopiers
- Card reader for digital memory cards
- Headphones and microphones

Software

- Word-processing and desk top publishing programs
- Painting and drawing software
- Multimedia presentation programs
- Spreadsheet and database programs
- Control program and models
- Simulations
- Coding programs
- SIMs (School Information Management System)
- CPOMS (CP Online Monitoring System)

Online material

- School website
- Google Classroom Suite
- Lexia (reading literacy tool)
- Chat GPT (feedback tool)
- Discovery Espresso
- Purple Mash
- My Maths
- Maths Genie – GCSE Maths support
- Mr Bruff – English GCSE Support
- Pupil Rewards
- LGFL learning platform
- Social Media
- Zoom – video conferencing
- Coding opportunities through visiting professionals

Copyright and licensing

All software loaded on school computer systems must have prior permission from school. Personal software of pupils or staff should not be loaded onto the school system unless permission has been granted. For pupils in protective isolation, laptops/iPads are deep cleaned prior to issuing. The laptop or iPad is then signed out for the pupil's sole use during their stay in hospital.

See also - Remote Learning Policy

Date reviewed: **June 2024**
Date of next review: **June 2026**

Date approved by the Governing Body: 20/06/2024