

Use of information and communication technology across the curriculum

1 Pupils should be given opportunities¹ to apply and develop their ICT capability through the use of ICT tools to support their learning in all subjects (with the exception of physical education at key stages 1 and 2).

2 Pupils should be given opportunities to support their work by being taught to:

- a find things out from a variety of sources, selecting and synthesizing the information to meet their needs and developing an ability to question its accuracy, bias and plausibility;
- b develop their ideas using ICT tools to amend and refine their work and enhance its quality and accuracy;
- c exchange and share information, both directly and through electronic media;
- d review, modify and evaluate their work, reflecting critically on its quality, as it progresses.

English

Key Stage 1

En 2 Reading

Note for 2a

Organisational features in CD-ROMs and web pages include icons, hotlinks and menus.

En 3 Writing

2C Pupils could compare print-outs from two different drafts of their own writing to check revisions and improvements.

Key Stage 2

En 2 Reading

8 Pupils could use moving image texts (for example, television, film, multimedia) to support their study of literary texts and to study how words, images and sounds are combined to convey meaning and emotion.

En 3 Writing

1 Pupils could compose on screen and on paper.

Note for 2a, 2d

On screen this includes using the planning and proofing tools in a word processor (for example, thesaurus, grammar checker).

Note for 11

Readers could include those contacted through post, fax or e-mail.

Mathematics

Key Stage 1

Ma 2 Number

1f Pupils could use ICT to communicate results using appropriate mathematical symbols.

Ma 3 Shape, space and measures

1b Pupils could use both digital and analogue devices to measure weight or time.

4b Pupils could programme a toy to follow a path involving half-and quarter-turns.

Key Stage 2

Ma 2 Number

4d Pupils could construct and use a formula to transform one list of data to another.

Ma 3 Shape, space and measures

1c Pupils could use software to create repeating patterns, such as tessellations.

2c Pupils could use object drawing software to plan alternative layouts for a room.

Science

Key Stage 1

Sc2 Life processes and living things

2a Pupils could use multimedia sources to make comparisons.

4 Pupils could use data collected to compile a class database.

Sc3 Materials and their properties

1b Pupils could use a software package to combine words and pictures about materials and objects.

Sc4 Physical processes

3c Pupils could use sensors to detect and compare sounds.

Key Stage 2

Sc2 Life processes and living things

2b Pupils could use a database or spreadsheet to analyse data about types of food in school lunches.

2c, 2e, 2f

Pupils could use video or CD-ROM to see things that cannot be directly observed.

4a Pupils could use a branching database to develop and use keys.

5b Pupils could use video or CD-ROM to compare non-local habitats.

5f Pupils could use simulation software to show changes in the populations of micro-organisms in different conditions.

Sc3 Materials and their properties

2b Pupils could use sensors to record temperature changes.

2e Pupils could use CD-ROM or the Internet to research water supplies in a range of localities.

Sc4 Physical processes

1a Pupils could use simulation software to extend an investigation of components in a series circuit.

3f Pupils could use sensors to detect and compare sounds made under different conditions.

4b - 4d

Pupils could use video or CD-ROM to study models of the Sun, Earth and Moon system.

Design and technology

Key Stage 1

1a,1e

Pupils could use word-processing or desktop publishing (DTP) software and a printer to plan and display their ideas.

2e Pupils could use 'paint' software and a colour printer to produce a pattern for finishing a product.

Key Stage 2

1b - 1d

Pupils could use desktop publishing (DTP) software and a colour printer to develop and communicate their design ideas.

History

Key Stage 1

4a Pupils could use information from a CD-ROM to find out about the life of a significant person, or the way of life in the past.

5 Pupils could order important events in a story on an on-screen timeline.

Key Stage 2

4b Pupils could use a census database to search for information and identify and explain patterns of change.

5c Pupils could use digitised maps to identify and colour-code features important to local study.

Geography

Key Stage 1

2c Pupils could use a programmable toy to develop instructions for following a route.

4a Pupils could use a digital camera to record places, people and events observed outside the classroom.

6b Pupils could use CD-ROMs or the Internet to investigate a contrasting locality.

Key Stage 2

2d Pupils could use a database to sort, question and present information about different countries.

3d,3f

Pupils could use the internet to access comparative weather information about different locations.

6d Pupils could use e-mail to exchange information about features of settlements with another school.

Art and design

Key Stage 1

4a Pupils could use 'paint' software to explore shape, colour and pattern.

Key Stage 2

1c Pupils could use digital and video cameras to record observations.

2b Pupils could use digital images as a starting point for creative textile work.

3a Pupils could develop their own class art gallery on the school web site.

Music

Key Stage 1

2b Pupils could use software designed to enable exploration of sounds.

3b Pupils could use recording equipment to recall sounds and identify and make improvements.

Physical education

Key Stage 1

6,8

Pupils could use videos of movements and actions to develop their ideas.

8 Pupils could use a concept keyboard to record the order of specific actions in their sequences.

Key Stage 2

6,8

Pupils could use video recordings of their sequences and dances to compare ideas and quality.

6,8,10

Pupils could use video and CD-ROMs of actions, balances and body shapes to improve their performance.

¹At key stage 1, there are no statutory requirements to teach the use of ICT in the programmes of study for the non-core foundation subjects. Teachers should use their judgment to decide where it is appropriate to teach the use of ICT across these subjects at key stage 1. At other key stages, there are statutory requirements to use ICT in all subjects, except physical education.