



**SketchleyHill**  
Primary School

# ICT Health & Safety Policy

<b><i>Review Programme</i></b>	
<b>Policy adopted:</b>	<b>Summer 2019</b>
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All schools should have a Health and Safety Policy, dealing with all aspects of Health and Safety within the establishment, including the safe use of computer equipment. The school Health and Safety Officer should be aware of all issues involving the use of computers and the Head teacher and Governors should ensure provision is made for their safe use.

## Introduction

There is no specific mention made of teachers and pupils in relation to ICT in any Health and Safety regulations or E.U. legislation. Nevertheless, regulations should be interpreted to include teachers and pupils who use computers during the school day. Educational establishments must be aware of certain issues in order to minimise risk and to ensure the safe use of ICT.

In recent years, several issues have given cause for concern in relation to the use of ICT equipment. These include:

- Repetitive strain injury (RSI)
- Eye strain and related problems caused by working with VDUs

Carefully designed working environments can help to alleviate these problems and enable individuals to work more efficiently.

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## ICT and Health and Safety legislation

In response to an E.U. Directive, UK regulations, relating to the use of display screen equipment, came into force, in the form of the Health and Safety (Display Screen Equipment) Regulations 1992.

These affect "workers who habitually use VDUs for a significant part of their normal work" (TVs and LCD displays are not included).

The Electricity at Work Regulations 1989 require all electrical systems and equipment to be maintained in a safe condition.

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## Health and Safety and ICT in Schools

Legislation, in the main, relates to the conditions in which Administrative Staff work but must be interpreted to include teachers who use computers in their work.

There are certain issues, which should be taken into account when working in a school environment in order to promote the safe use of ICT.

### Electrical safety

Under the Electricity at Work Regulations 1989, all electrical equipment should be regularly maintained by the school and by a competent technical expert. All equipment should be tested annually.

CO2 extinguishers should be positioned near any ICT equipment.

Things to consider:

- Damaged plugs and frayed, worn or damaged cables should be replaced.
- Ensure correct rating of fuses for particular appliances.
- As a general rule, ICT equipment should be positioned close to an adequate power supply.
- Where trailing flexes are unavoidable, they should be re-routed and secured or covered to prevent accidents and wear on the cable.
- Extension cables should not be seen as a permanent solution to the powering of ICT equipment. Overloading and power surging can occur when using long extension leads.
- Design of computer suites should take into account the siting, and adequate number, of mains plugs sockets. Permanent cabling should be in suitable conduit, multi-compartment dado trunking, in order to carry mains cables and signal cables separately. Cabling should be out of the reach of children.
- Avoid coiled cables - heat could be generated which would be sufficient to start a fire.
- Accidental damage - cuts to cables, damage from spilt liquid etc.

- Battery charging and disposal - batteries should only be charged for the correct period as they become overheated if left for longer periods. Nickel cadmium, lithium and nickel hydride batteries contain harmful chemicals and should be disposed of as directed and not thrown in the dustbin.

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## Wireless networks

The following is an extract from the 'Becta Information Sheet 'Health and Safety: planning the safe installation of ICT in schools':

"Wireless technology is developing rapidly and presents an alternative for some schools, although there are concerns about health risks in relation to radiation.

Whilst there are some similarities between the technologies used in mobile phones and wireless networking, the key difference is in the power output. The output from wireless networking devices is significantly less than mobile phone handsets and transmitters.

The National Radiological Protection Board (NRPB) is responsible for guidance in the UK. Some equipment is supplied with guidance issued by the US Federal Communications Commission (FCC), which advises users to remain at least two inches from a wireless LAN PC card and eight inches from a base station. These distances should be greater if some form of external antennae is used.

In a wireless network, data is received from radio transmitter nodes suitably spaced around the school. A single node typically serves six secondary school users simultaneously. Radio nodes have a range of about 30 m but this depends on each school, and it is essential to conduct a site survey. Metal embedded in the building structure can cause problems, although antennae can improve reception.

Cabling is required to link nodes/base stations and main servers, and these need power. It is important to have wireless networks installed by specialists in accordance with the industry standards for network cabling. They should also configure the system to ensure correct performance. The current standard is Untwisted pair cable UTP 5E. Backbone cables between servers and radio nodes are likely to be fibre optic to enable high-speed data transfer."

### Heat and humidity

- Computers give off a dry heat. This can build up during the day, especially in an ICT Suite and can cause discomfort to users. It is advisable for a room containing a number of computers to be air conditioned, well-ventilated or have some means of introducing humidity to reduce discomfort. Ideally, the temperature should be between 18° and 24° and with humidity of 40-60%.
- It is a good idea for computers to be switched off if they are not in use for a length of time. Air vents on monitors and computers should not be obstructed.

### Lighting

- Room lighting - should be positioned so as to avoid reflection on monitor screens, i.e. preferably uplighting round the room or at least well-diffused strip lights.

### Positioning and glare

- In classrooms, computer workstations should be positioned at right angles to the window in order to prevent glare on screens and to prevent pupils from facing a bright light source behind the monitor.
- Computer suites should be fitted with blinds in order to reduce glare on monitor screens from windows.
- Work surfaces should be non-reflective and clean.

## Noise

- Most ICT equipment gives off some background noise when the power is switched on, even if not in use. Switch off computers when not in use.
- Software, which uses sound can be distracting in the classroom and in particular in a computer room. Earphones should be used whenever this kind of software is being used.
- Headphones and speakers should be adjusted so that the volume is not too loud. It is advisable to check this before use by pupils.

## Space

- There should be enough space around a workstation for peripherals, papers and other materials. There should be enough room for more than one pupil at a time round each computer and for the teacher to gain access.
- Thought should be given to the positioning of the workstation in relation to the user's comfort e.g. not too near radiators etc..
- Wheelchair access - there should be adequate access and a variable height workstation available if required. In a computer room, there should be sufficient width access if benching is in rows.

## Software

Health and safety legislation covers this area in relation to stress:

- Software should be easy to use and appropriate for the task.
- Sufficient training in its use should be given to all users.
- Advice should be sought and reviews noted prior to purchase in order to ensure appropriateness of software.
- Always check CD-ROMs and DVDs for defects, cracks etc. as they may cause the disc to shatter in a high-speed drive and lead to pieces escaping from the drive.

## Comfort and safety

- Breaks - all computer users in school should take frequent breaks from concentrated computer work, e.g. a ten minute break every hour in order to allow eyes to readjust to greater distances.

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## Health issues

### Photosensitive Epilepsy

Teachers should be aware of pupils with this condition and should make sure that the monitor being used has no visible flicker. The screen should have a brightness control, which can be adjusted.

### Eyesight

Use of clear, steady monitors should have no detrimental effects on eyesight. One should be able to see the screen clearly from a distance of 75cm and spectacles used as necessary. Contact lens wearers may experience some discomfort in computer rooms where the air is dry due to poor ventilation.

Staff using computers for long periods (more than 2 hours a day) may be entitled to eye tests at their employer's expense.

Long periods of use should be avoided. Ten-minute breaks every hour should be taken. Short frequent breaks are more beneficial than longer breaks.

### Repetitive Strain Injury

There is some debate about RSI and its consequences. In some quarters, it is felt that most users in school are not professional typists and unlikely to suffer from this condition. On the other hand, it could be said

that RSI poses a potential risk for anyone typing with only one or two fingers, especially when there may be added strain from playing games on home computers.

It is important that keyboard users make sure that they are in a comfortable position before they begin to use the keyboard.

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## Equipment

Users should be able to adjust:

- The keyboard - to the most comfortable position and have the option to have it flat or tilted.
- The screen - height and angle should be adjustable. The top of the screen should be at eye-level. Users should be able to adjust brightness and contrast.
- The seating - the height of the chair should be adjustable. Where pupils of different age groups are using an ICT Suite, steps should be taken to make sure that there is a match between the worksurface height and the chair size. Users should aim for a particular position when using computer equipment - lower arms should be in a horizontal position and knees should fit comfortably under the work surface with thighs roughly horizontal. Footrests should be provided to ensure this.

## Work surfaces

The surface or trolley should be at the appropriate height. Suggested heights are:

- Nursery - 460 mm
- KS1 - 540mm
- KS2 - 610mm
- KS3/4 - 680mm

Surfaces should be deep enough to take the computer and keyboard and leave enough room in front for users to rest their forearms in front of the keyboard. (At least 750mm but preferably 900mm)

Peripherals should be in positions within easy reach of the user.

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## Projectors and interactive whiteboards

The following is an extract from [Becta Information Sheet: 'Planning the safe installation of ICT in schools'](#)

"Projectors should, wherever possible, be placed out of reach of the pupils. A ceiling-mounted projector is the ideal solution, as this avoids trailing wires and reduces the possibility of projector beam dazzle. This option enables whiteboard users to look at the class without looking directly at the projector beam. Projectors should be professionally fitted and adjusted, so that the 'keystone correction' provides a correct 'rectangular' image onto the screen. The cabling should be professionally incorporated into any trunking.

Fixed equipment, however, is not always possible and there may be a requirement for the equipment to be mobile around the school. In these cases, it is important to ensure that the unit is anchored firmly when in use, and that trailing power cables are covered and secured.

In a bright room, you would need to consider a more powerful projector. However, this could lead to discomfort and possible damage to the eye. It is very important to follow the manufacturer's instructions. Warning notices should be displayed prominently on the equipment, and pupils and teachers should be discouraged from staring at the beam. Risk assessment should inform good practice within your school. Training in the use of the equipment should include all health and safety issues.

It is advisable to position whiteboards at a comfortable height for use by pupils. There will often need to be a compromise between pupils being able to see the screen from across the classroom and being able to interact with the screen. If the screen needs to be fitted at adult height, it may be necessary to provide a small, secure platform that younger pupils can use in order to reach the screen. (Becta Information Sheet: planning the safe installation of ICT in schools. December 2001)

Laptops / portable computers - if they are kept in one place for most of the time, they must conform to the same standards as desktop machines. Keyboard and screen are normally fixed together, making it impossible to position them separately and the screens are often small; therefore they should not be used for prolonged use. Height of work surfaces must also be considered in the same way as desktops (see section on Equipment / Work surfaces). They should be sited near an adequate power supply to avoid trailing leads or used on the internal battery. Trolleys specifically designed to store and recharge laptops are available, but space must be allowed to accommodate these.

Research commissioned by the Health and Safety Executive (HSE) lists the following ergonomic factors to consider when selecting portable computers:

- lighter weights - for example, 3 kg or less
- large and clear screen - for example, 14" diagonal or more
- longest battery life possible, or extra transformer/cable sets, so that the user has a set in each location and does not have to carry these around
- touch pad, roller ball or external mouse to suit the user
- lightweight carry case with handle and shoulder straps
- adjustable tilt keyboard
- facility for attaching external mouse and numeric keypad
- friction pads underneath to prevent the computer from slipping when in use
- sufficient memory and speed for applications that are used. "

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Other useful equipment for computer use

- Glare guards
- Wrist rests
- Copy holders

Other related health and safety considerations

### **Hazardous substances**

- Printer toner should be treated with care. It is a fine dust and should not come into contact with the skin or be inhaled. Older printer toner, which may still be in use in some institutions, was carcinogenic. This should be handled with care, using rubber gloves and disposed of safely.
- Cleaners and solvents, e.g. surface cleaners and floppy disk cleaners are dangerous to inhale, should only be used in a well-ventilated area and should be stored safely. Other cleaning fluids and some fluids used in reprographic processes are flammable and should be used with care.

### **Manual handling**

It is advisable to use trolleys if possible when transporting computer equipment. If monitors have to be carried, they should be carried with the screen towards the body, never facing down. When lifting computer equipment, use the correct posture, i.e. back straight, bend knees. Avoid carrying equipment with leads dangling - remove or tape to equipment.

### **Food and drink**

Never eat or drink near a computer. Spilt liquids can "short" a keyboard.

## Further information

### Health and Safety Executive leaflets and documents

- Electricity at work: safe working practices
- The Manual Handling Operations Regulations 1992 - guidance on the Regulations
- Working with VDUs
- IND(G)36(L)R2
- Display screen equipment work. Health and Safety (Display Screen Equipment) Regulations 1992 - guidance on regulations - [www.hse.gov.uk](http://www.hse.gov.uk)

### Information Technology: Health and Safety Advice - Tower Hamlets Authority. -