HEALTH & SAFETY RELATING TO COMPUTING

References: Health and Safety (Display Screen Equipment) Regulations 1992. and SAN (G) 13.

The Health & Safety (Display Screen Equipment) Regulations 1992 implement an EC directive and came into effect from January 1993 (there were some small changes made in 2002). The regulations require employers (Beckstone Primary School) to protect employees from any risks associated with Display Screen Equipment (DSE) i.e Computers and Laptops. They apply to anyone who regularly use DSE as a significant part of their normal work (daily, for continuous periods of an hour or more). This policy outlines the main points of the regulations with respect to the school environment and the Computer Suite.

It is the responsibility of the teachers to ensure all the equipment is safe and working satisfactorily in their classrooms. Any faults should be reported to the I.C.T. Co-ordinator or the Headteacher.

DISPLAY SCREEN

Workstations should be designed so that sources of light, such as windows and other openings, walls, coloured fixtures etc., cause no direct glare and no distracting reflections on the screen.

- The characters on the screen should be well-defined and clearly formed, of adequate size and with adequate spacing between characters and the lines.
- The image on the screen should be stable, with no flickering or other forms of instability.
- The brightness and the contrast between the characters and the background should be easily adjustable by the operator.
- The screen must swivel and tilt easily and freely to suit the needs of the operator.
- The height of the screen should be adjustable.
- The screen should be free of reflective glare and reflections liable to cause discomfort for the operator.

The operators should use a font size that can easily be seen on the screen and choose a font that is of a colour and shape that is easy to read.

An unstable image on the screen can sometimes be remedied by using the adjustment knobs at the base of the monitor.

Brightness and contrast may need to be altered; this will depend upon the lighting the adjustment knobs can be found at the base of the monitor. All our rooms have vertical blinds fitted to the windows, which prevent glare from sunshine. Anti-glare screens

are necessary for people who spend most of the day working on the computer and for those who suffer from epilepsy where screen glare may cause problems.

It will be necessary to tilt or turn the monitor to make the working position more comfortable. Document holders sitting to the side of the screen in the computer room have been provided to avoid the user continually twisting to see their notes.

In the school and computer suite it is not possible to adjust the height of the table for the screen, however the chairs are adjustable.

KEYBOARD

- The keyboard shall be tilt-able and separate from the screen so as to allow the operator the opportunity to find a comfortable working position avoiding fatigue in the arms or hands.
- The space in front of the keyboard shall be sufficient to provide support for the hands and arms of the user.
- The keyboard should have a matt surface to avoid glare.
- The symbols on the keys should be adequately contrasted and legible from the working position.

All our keyboards are matt in finish; they are fitted with adjustable feet at the back, enabling the operator to use it in a tilted, comfortable position. Newer machines in school have a wrist/ hand support fitted to the front edge of the keyboard to avoid muscle fatigue. Further ways to avoid muscle fatigue include:

- Trying to keep your wrists straight when keying.
- Keeping a soft touch on the keys and don't over stretch your fingers.
- Good keyboard technique is important, so look to attend a touch type course when offered.
- Using both hands to type.

CHAIRS

All the workstations in the school and the computer suite have five-wheeled swivel chairs, which are fully adjustable and comfortable. The Computer Suite chairs are gas lift whereas the school ones are adjusted by swiveling the seat.

- The work chair should be stable and allow the operator easy freedom of movement and a comfortable position.
- The seat should be adjustable in height.
- The seat back should be adjustable in both height and tilt.
- A footrest will be made available if an operator requests

one.

WORK SURFACES

- The work desk should have a sufficiently large, low reflective surface and allow flexible arrangement of the screen, keyboard, documents and related equipment.
- The document holder should be stable/adjustable and be positioned so as to minimise the need for uncomfortable head and eye movement.
- There shall be adequate space for operators/users to find a comfortable position.

SAFETY AND MAINTENANCE

- Overheating. There are vents on either side of the computer. These are for ventilation and should not be covered to avoid fire.
- Wiring. The power cords should be free from obstruction. They should be placed where they will not be walked on or tripped over. Cords to the keyboard and mouse need to be free moving to prevent strain and consequent damage to them.
- Fire. Only the Carbon Dioxide Extinguisher is suitable for electrical fires, there is one sited in the Computer Suite..
- Food and drink. No food or drink is allowed in the Computer Suite. or near the computers in the classroom. Spilt drink can cause electrical fires or shock; keyboards can become sticky and clogged by food which gets beneath the keys.
- Cleaning. All appliances should be unplugged before cleaning. Use anti-static wipes for the monitors, which are stored in the Head's and Secretary's offices. The keyboard can be cleaned with a paintbrush to remove the dust and a very slightly dampened cloth to remove dirty or sticky marks.
- Electrical Checks. All the I.C.T. equipment is checked annually by a qualified electrical engineer that certifies the safety of each individual component of the computer. A label certifying its safety is stuck on each machine. (PAT testing)

Portable Computers (LAPTOPS).

The same controls with regard to DSE also apply to portable computers. However the following may also help reduce manual handling, fatigue and postural problems;

- Consider potential risks from manual handling if users have to carry heavy equipment and papers.
- Use a docking station or firm surface and a full size keyboard and mouse if possible.

- The height and position of the portable screen should be angled so that the user is sitting comfortably and reflection is minimised.
- More changes in activity may be needed if the user cannot minimise the risk of prolonged use and awkward postures to suitable levels.

ASSESSMENT OF WORK STATIONS

All DSE workstations utilized by users must be assessed so that health and safety risks are identified and controlled. The self assessment form (appendix C) in SAN(G) 13 will be used.

EYESIGHT:

There is no evidence to suggest that DSE work will cause permanent damage to eyes or eyesight. Eye tests are provided to ensure users can comfortably see the screen and work effectively without visual fatigue. If a user or potential user request an eye test school will provide one. If the tests show that the user needs glasses specifically for DSE work school will pay for a basic pair of frames and lenses. Users are entitled to further tests if DSE work is considered to cause them visual fatigue and at regular intervals after the first test.

HEALTH & SAFETY RELATING TO COMPUTING – can be used as a daily checklist.

The following are suggestions to prevent potential health problems when using a computer.

1. GETTING COMFORTABLE

- Forearms should be approximately horizontal and the users eyes should be the same height as the top of the screen.
- Make sure there is enough work space to accommodate all documents or other equipment. A document holder may help avoid awkward neck and eye movements.
- Arrange the desk and screen to avoid glare, or bright reflections. This is often easiest if the screen is not directly facing windows or bright lights.
- Adjust curtains or blinds to prevent intrusive light.
- Make sure there is space under the desk to move legs.
- Avois excess pressure from the edge of seats on the backs of legs and knees.

2. WELL-DESIGNED WORKSTATIONS

a. KEYBOARDS AND KEYING IN (TYPING)
- A space in front of the keyboard can help you rest your hands and wrists when not keying
- Try to keep your wrists straight when keying.
- Good keyboard technique is important-you can do this by keeping a soft touch on the keys and not overstretching the fingers.
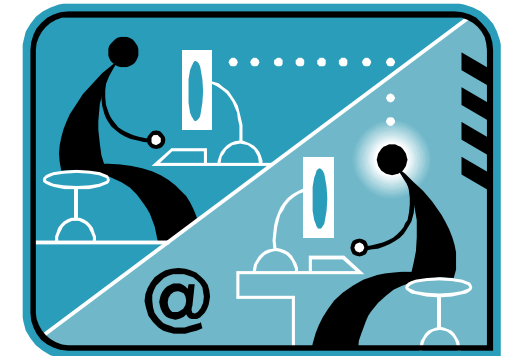
b. USING A MOUSE
- Position the mouse within easy reach, so it can be used with the wrist straight.
- Sit upright and close to the desk to reduce working with the mouse arm stretched.
- Move the keyboard out of the way if it is not being used.
- Support the forearm on the desk, and don't grip the mouse too tightly.
- Rest fingers lightly on the buttons and do not press them hard.

c. READING THE SCREEN
- Make sure individual characters on the screen are sharp, in focus and don't flicker or move. If they do, the DSE may need servicing or adjustment.
- Adjust the brightness and contrast controls on the screen to suit lighting conditions in the room.
- Make sure the screen surface is clean.
- When setting up software, choose text that is large enough to read easily on screen when sitting in a normal comfortable working position.
- Select colours that are easy on the eye (avoid red text on a blue background, or vice-versa.)

3. CHANGES IN ACTIVITY

- Breaking up long spells of DSE work helps prevent fatigue, eye strain, upper limb problems and backache. The employer needs to plan, so users can interrupt prolonged use of DSE with changes of activity. Organised or scheduled rest breaks may sometimes be a solution.
- Stretch and change position.
- Look into the distance from time to time, and blink often.
- Change activity before users get tired, rather than to recover.
- Short, frequent breaks are better than longer, infrequent ones.

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