

**Health & Safety Guidance
Children's Service Department**

**ICT – GOOD PRACTICE
IN THE CLASSROOM**

Review Date	Changes Required	Name & Position

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ICT - Good Practice in the Classroom

Although pupils are not covered by the DSE Regulations, good practice can be taken and adapted from the guidance which accompanies the Regulations. Another consideration is that staff often use the same equipment as pupils. It is therefore reasonable to consider health and safety issues when designing the ICT provision, with the emphasis on sound ergonomic principles.

The following design practices should be followed where possible:-

Layout

Sufficient space between workstations to allow comfortable working should be provided, including the use of peripheral equipment such as paper, books and space for note taking. This space should take into account the needs of both left and right-handed pupils/staff for using a mouse. Generally, 1000mm between workstations is adequate for one pupil per workstation. For 2 pupils, 1500mm is advised.

There must be sufficient space to allow free movement around the room, including emergency evacuations. People with disabilities are to be considered in this assessment. 850mm is the minimum amount of clear space in front of the computer table for a chair and suitable circulation space. A minimum 1200mm between aisles, will allow wheelchair users space to circulate.

Desk/Table

The height of the desk or table should be suitable for the user(s). There should be sufficient space underneath to allow the user's legs to fit comfortably and to allow them to sit close, with enough space for ease of movement. The person's eye line should be level with the top of the monitor with the lower arms horizontal. Consideration should be given to the whole range of potential users, including those with specific needs.

The desk/table should be of sufficient depth to allow the keyboard and monitor to be positioned in a straight line whilst allowing sufficient space in front of the keyboard for the pupils to rest their arms and wrists. To conform to EU regulations, this would mean a minimum depth of 800mm, although much will depend on the type and make of the equipment being used however. For example, if a flat screen monitor is being used, 800mm is likely to be adequate and maybe even 700mm is enough. If the monitor is not flat screen, a depth of 1000mm or, in some circumstances, 1200mm may be needed for a conventional monitor. A distance of 450 – 750mm is recommended between the monitor and the edge of the desk/table.

Other considerations should be that the surface should be of non-reflective material. Anti-slip, chemical resistant surfaces, which eliminate the need for mouse mats, are available. Desk/tables should not have sharp edges and corners, including edging strips on which cables could be damaged or pupils injure themselves.

Seating

When selecting seating for use by pupils, they should be considered along with the desk/table to be used to ensure the two are compatible.

The seating should not leave pupil's legs dangling, or be so low that they are looking up at the computer. These types of circumstance give pupils poor posture and can make them uncomfortable with the possibility of long term physiological problems. With this in mind, seating which is adjustable, in height at least, would be sensible as this would help account for the variability in the heights of individual pupils.

Because of the space constraints of classrooms and the layout of equipment and facilities, pupils are often expected to turn around to face the teacher and the board. If fixed chairs are used, this often causes the pupils to twist, which again can cause physiological problems. 'Swivel' seating would help to solve this problem.

Although it is possible to purchase stools which are adjustable in height, these do not support a person's back. A solution would be chairs which are adjustable in height but without arms to allow the pupils to position themselves close to the desk/table. The angle of the back of the chair may be adjustable (as with an adult computer chair) but for small, young pupils it is questionable whether they would be able perform these adjustments.

Cabling and Electricity

The electricity at work regulations 1989 requires all electrical systems and equipment to be constructed and maintained in a safe condition. Cable management should be integrated so far as possible within the workstation. Power cables should be secured and covered, and never trail.

The use of extension cables should be avoided wherever possible. Computer workstations generally require a minimum of two power sockets, one for the monitor and one for the base unit. Other equipment, such as printers, scanners etc should also have a socket each.

Suitably qualified people should undertake electrical work.

The school must refer to the asbestos survey for the building and the Asbestos Policy ([click here](#)) before any work is carried out.

Projectors and Interactive Whiteboards

If a projector is to be used to present a lesson, care must be taken to ensure that people cannot walk in front of the equipment, as the beam may cause 'retina burn' if looked at directly. A common solution is a ceiling mounted projector, which also helps in preventing tampering by un-authorized personnel.

If an interactive whiteboard is to be used, consideration will need to be given to positioning it at a height which is suitable for the pupil group **and** the members of staff.

Lighting

Levels of lighting should be slightly lower than lighting recommendations for standard classrooms so that there is appropriate contrast between screen and background environment. (The recommended level is 300 – 500 lux, measured at work surface height).

It is important to control glare and screen reflection. Equipment should be positioned at right angles to windows if possible to minimise this. It will often be necessary to provide blinds for windows, although it is better to avoid a situation where blinds are down and lights are switched on permanently. Semi translucent blinds stop glare from the sun but let in some light.

Temperature and Humidity

Ideally, the temperature of an IT room should be between 18-24 degrees, with humidity between 40-60 per cent.

Computer suites require good ventilation. Almost all ICT equipment generates heat and the aggregate effects may be significant, particularly as the day progresses. The air in a computer room can often become dry and stuffy. Plants or humidifiers can help improve poor humidity. Condensation can damage ICT equipment so rooms must not be too humid.

Internet Safety/Child Protection Tips

While the internet serves as a wonderful educational tool, it is an unregulated one, and teachers, parents and children should be aware of the inherent dangers of using the internet. Caution needs to be exercised to ensure that children do not access unsuitable adult material on the internet:-

- home/school internet contracts should be in place
- preview internet material to be used for schoolwork
- computers should be placed in public areas and screen content should be visible to everyone
- teaching children how to use the internet safely and warn them of the potential dangers of unsuitable sites and chatrooms
- advise children never to give out personal details on the internet
- have clear penalties in place for misuse of the internet
- monitor children's time spent on-line
- purchase filtering software

Computer Security

Computers continue to be a target for thieves and the following advice is intended to help you address the issue of security before purchase/delivery, and after the equipment has been delivered.

Before You Place the Order:

Assess the security implications and include the cost of additional measures in the bid or budget; it is cheaper and easier to address these matters at this stage rather than when the equipment has been delivered. The moral is; spend a bit on security and keep the equipment, or spend it all on equipment and lose it!

Pre-Delivery:

By addressing security before you place your order you will save time and money, and reduce the likelihood of equipment being stolen in the first few days and weeks following delivery. Waiting until the equipment has been delivered is often too late. When planning your purchase please consider the following:

Will you need to upgrade the alarm system?

Consider entrapment devices that secure equipment to the desk

(If you are intending to use security cases around PC's care must be taken to ensure adequate ventilation around the equipment. Ventilation slots and fans must not be covered otherwise the equipment will overheat and eventually fail. Failure of equipment caused by this would not be covered under maintenance)

Do you need to improve locks and/or fit window grilles?

Where are you going to site the equipment? Keep it away from windows or other areas that would be attractive to the opportunist thief

Do you need to change your systems of working? eg a change of room may improve the physical security of the equipment.

Following Delivery:

Move the equipment to a safe place as soon as possible

Ensure that all new equipment is marked with SELECTAMARK or an equivalent as soon as possible after delivery. (Please note that marking may lead to difficulties under warranty if the unit needs to be replaced. However, the financial costs to the Authority of not getting replacements under warranty are outweighed by the greater risk of the equipment being stolen. IT Division advise that security marking does not affect repairs under warranty; only replacement. To reduce the number of disputes that may occur if equipment needs to be returned under warranty IT Division recommend that the marking be sited in the following places:

- Standard Monitor - Back cover (either top or side)
- LCD Monitor - Back cover
- Tower PCs - Side of case
- Desktop PCs - Side or top of case
- Laptop - Lid
- Printers - Top cover

(Any charge for replacing equipment because it has been marked will fall to be met from the establishment's revenue budget).

For the marking to be effective the insurers recommend that signs are displayed prominently and liberally around the establishment stating that all equipment is security marked.

Consider how you will dispose of your packaging; thieves visit premises looking for empty computer boxes. The packaging not only alerts them to the fact that you have new equipment, it also tells them what you have bought; they can then decide in advance, if they really want it!

Publicity is good for the image of the Council, and is sometimes requested if funding is by sponsorship or grant aid. However, care is needed because you will be alerting thieves to the fact that you have something worth stealing.

Mobile Equipment (Including Laptops):

It is recommended that a corporate or central postcode be used.

Laptop Computers:

These are particularly attractive to thieves because of their high value and, by definition, they are portable and thus easy to conceal. They must be locked safely out of site when not in use. This also applies during the day because a number of establishments have already experienced "walk in thefts" of laptops.

Laptops are insured when staff take them out of the office, including whilst they are kept overnight in the homes of staff. Laptops are also covered when left unattended in vehicles, provided they are locked out of sight in the boot, and the vehicles alarm (where fitted) is set.

This cover does not apply to Laptops that are left unattended overnight in vehicles.

Laptops must be removed from vehicles that are left overnight.