Using Information Technology

Technology

Throughout a child's life they will generally have contact with a variety of different technology. From toy computers, play consoles and smart phones/tablets, information technology is becoming an increasing part of a child's everyday life.

Technology can also play an important role in schools to support a young person's specific accessing needs. It can be used effectively to support pupils with a wide range of conditions which limit their ability to read and write.

Often a difficulty with writing or accessing the curriculum will be identified by the class team or parents, and they may be dealt with effectively within the school and home, without the need to seek input from other professionals. If however the pupil's needs are more complex requiring further assessment or advice, a referral to Occupational Therapy may be required.

The Occupational Therapist will work with the pupil, the teacher, parents and other professionals involved (e.g. speech and language therapy), in order to carry out a functional assessment, and understand the pupil's individual needs.

This assessment may include;

- Selecting the most effective means of accessing the curriculum based on physical, cognitive and sensory assessment.

- Selection of the most appropriate equipment.

- Assessment of seating and positioning of equipment.

- Assessment of the classroom environment.

Hardware and Software

Technology can be divided into 2 different areas; Hardware and Software

Hardware

Hardware is the collection of physical parts of the computer including the computer itself, monitor/screen, and various accessing methods e.g. different keyboards, mice and switches. There are many varieties of keyboards, mice and switches that could help improve access to computers, smart devices, toys, games, communication devices and environmental controls, depending on individual need.

Keyboards – e.g. standard, jumbo/enlarged, mini keyboards, uni-lateral keyboard, overlay key guards and on-screen keyboard (operated by touch screen or cursor).

Mouse – e.g. small (designed for a small child's hand), uni-button, (could be used at early stages of accessing technology or if there are difficulties with left/right discrimination), standard click, double click, wireless, roller ball, joystick, and thumb mouse (helpful when there is limited dexterity).
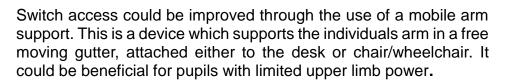
Switches – e.g. tilt, infrared, squeeze, pal pad, spec, button, lever, pincer grip switches and 'suck and blow' mouth operated switches.

Switches can be operated by different parts of the body, and positioned or secured on desks, wheelchairs, trays, class chairs, or special mounting devices etc. Following assessment, the Occupational Therapist will be able to advise on the most suitable switch and functional use, for example, a button switch positioned on a class chair head rest or suitable support to enable head control**.**

Switch access could be improved through the use of a mobile arm support. This is a device which supports the individuals arm in a free moving gutter, attached either to the desk or chair/wheelchair. It could be beneficial for pupils with limited upper limb power**.**

Software

There is a wide range of software packages available to improve access to computers and smart devices, e.g. communication software, education software, games programmes, website access and Apps, with a variety of operating methods**.**

Eye Gaze Technology – uses eye movements to access computers and smart devices**.**

Touch Screen Technology – e.g. large interactive screens, tablets or smart phones**.**

Educational Programmes and Apps – for computers and smart devices, offer support with numeracy, reading, writing, literacy, composition and recording of work (e.g. Read and Write Gold and Clicker), and other curricular subjects. A wide range of specific tools can be selected to meet individual needs, e.g. word prediction, talking dictionary, picture dictionary, talking calculator and talk back.