

Signposts to safety

Teaching internet safety
at Key Stages 3 and 4







Foreword

Hardly a week goes by without some reference within the media to the dangers of the internet. Such is the fear raised, that the temptation is to pull the plug and return to life before the PC. This is, of course, a ridiculous and extreme reaction, but nevertheless we have to weigh up the enormous opportunities that the internet can bring against the dangers.

So what are the advantages? Apart from being an enormous source of information, the internet offers the opportunity to bring to the classroom experiences well outside those on offer to most young people today. For example, pupils are able to: observe environments and locations normally either too remote or too dangerous to visit; communicate with others and find out at first hand what life is like on the other side of the world; and view images sent back from other planets, such as Mars. The possibilities are truly limitless and offer a wealth of educational opportunities unimaginable as little as a decade ago.

And so to the downside. It cannot be denied that there are those who seek to use this wonderful resource to take advantage of young and vulnerable people. Roughly speaking, we can categorise these activities as relating to content, commerce and contact – the three Cs of which young people need to be made aware. The most dangerous is possibly where ICT-mediated communication leads to contact.

Young people often believe what they are told – if it appears in print, on the television or on the internet it must be true. The ability to evaluate the validity of information that they find online is vital to their safety. If it sounds too good to be true, then it generally is – a message to be learned in both the real and virtual worlds. Similarly, young people have to learn who can and who cannot be trusted – ‘friends’ made online may not be who they claim to be. These are all basic lessons which must be taught in our schools.

So how can we protect young people? By the use of technological safeguards at home and school, access to age-inappropriate material can be prevented. The use of trusted and reliable internet service providers (ISPs) and good filtering software offer a degree of protection, but no technology is 100 per cent effective all the time.

The second level of protection comes from educating young people with the correct strategies to follow should they encounter something on the net which makes them uncomfortable. While in school, young people are in a relatively secure technological environment, where use of chat rooms and email is limited or closely monitored. However, the school has a duty of care to ensure that young people remain alert to the dangers of the internet when outside school, where they are more likely to be using chat rooms, instant messaging, mobile phones and peer to peer (P2P) networks and, consequently, running greater risks.

This booklet, therefore, provides some signposts for teaching internet safety at Key Stages 3 and 4. It provides background information on the technologies, including the benefits and issues, along with pointers to useful resources and ideas for incorporating internet safety within the curriculum. We hope that you will find it useful.



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Special thanks go to ChildLine for providing case studies for this booklet.

ChildLine is the UK's free, 24-hour helpline for children and young people.

The number for children and young people to call is 0800 1111
[<http://www.childline.org.uk>].



Thanks also go to all the organisations that granted permission for screenshots of their websites to be reproduced in this booklet.

Disclaimer

This booklet is intended to provide a selection of sites to help teachers of Key Stages 3 and 4 teach internet safety in the classroom. There are other sources available, and the content and number of safety sites are constantly developing and growing.

Inclusion of resources within this booklet does not imply endorsement by Becta, nor does exclusion imply the reverse. Becta does not accept any responsibility for, or otherwise endorse, any information contained within referenced sites, and users should be aware that some linked sites may contain sponsorship or advertising information.

URLs and information given in this booklet were correct at the time of publication, but may be vulnerable to change over time.



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1 The role of ICT in the lives of young people today

The growth in the number of people using technology in recent years has been outstanding. Research conducted by the Office of Communications (Ofcom) found that, in April 2004, 64 per cent of UK adults had a PC at home, and 53 per cent of UK adults had internet access at home (approximately 13 million homes) [source: Ofcom 2004; see 'Publications mentioned in the text' at the end of this booklet for further details].

Research conducted for the DfES suggests that in those homes where children or young people live, access to technology may be even higher. The Young People and ICT survey 2002 explored the attitudes and experiences of young people aged 5–18 and their parents in relation to the use of ICT at home and at school. Research was conducted during September and October 2002, and updated an earlier baseline study conducted in autumn 2001. The study found that household access to most forms of ICT equipment is increasing [source: Hayward *et al.* 2003]. In 2002, 81 per cent of households with children or young people had access to a PC or laptop in the home (compared with 78 per cent in 2001). Access to the internet from home increased similarly over the same period, from 64 per cent in 2001 to 68 per cent in 2002.

The study found a relationship between access to a home computer and the internet and the key stage of the children in the household. Where households had children in Key Stage 1, 68 per cent had access to a home computer. This increased to 87 per cent for those households with children in Key Stage 4 and beyond. For internet access the figures were 56 per cent and 76 per cent respectively.

In terms of usage, children and young people are high users of technology. Almost all (98 per cent) of the young people aged 5–18 in the study used computers at home, school or elsewhere. The proportion of young people using the internet increased with age from 42 per cent in Key Stage 1, to 84 per cent at Key Stage 2, 94 per cent at Key Stage 3 and 97 per cent



at Key Stage 4. Likewise the amount of time spent using computers increased with key stage, with those in Key Stage 3 and above spending around 10 hours a week on a computer.

Access to mobile technologies is also increasing. In 2002, 92 per cent of households had access to a mobile phone, compared with 88 per cent in 2001. Households with access to devices containing mobile internet connectivity, such as wireless application protocol (WAP) or third generation (3G) phones, rose from 8 to 21 per cent over the same period.

The study also asked young people in Key Stage 3 and above and their parents a series of questions to gauge their awareness, attitudes and behaviour in relation to internet safety.

Among young people in Key Stage 3 and above, 88 per cent said that they were aware of internet safety issues. Awareness was higher among older children and those with access to the internet at home.

Those who were aware of internet safety issues were asked how important they felt it was that young people were aware of these issues when using the internet – 98 per cent felt that it was at least 'fairly important', with 82 per cent regarding it as 'very important'.

Of those who were aware of internet safety issues, 76 per cent had received advice and guidance on using the internet safely. Such advice was likely to come in fairly equal measure from parents (67 per cent) and teachers (70 per cent).

Access to the internet at home had a significant bearing on where young people received advice on internet safety: of those with home access, 76 per cent had received guidance from parents, compared with 36 per cent of those without home access. However, 89 per cent of those young people without home access to the internet said that they had received guidance on internet safety issues from school or college, compared with 64 per cent of those with home access.

In their responses, 80 per cent of parents said they were concerned about internet safety issues, 42 per cent said that

they had discussed inappropriate use of the internet with their child, 57 per cent felt that their child knew how to use the internet safely, and 38 per cent said that they knew where to get information about safe internet use. Generally, parental awareness of, and involvement in, internet safety issues increased with the age of the child.

More recent statistics are available in a research report from the UK Children Go Online (UKCGO) project, published July 2004 [source: Livingstone and Bober 2004].

The increase in access to, and use of, technologies is set to continue. Now, more than ever, young people need to know how to stay safe when using these technologies, and it is clear that schools have a large role to play in internet safety education. This booklet provides some signposts for teaching internet safety at Key Stage 3 and Key Stage 4.



2 Internet safety and whole-school issues

The requirement to raise awareness in children and young people of the risks associated with inappropriate contact via the internet and inappropriate content on the internet is addressed as part of the wider 'duty of care' to which all teachers are bound. However, the development of effective internet safety strategies should involve all the stakeholders in a child's education from the headteacher and governors to the senior management team and classroom teachers, support staff, pupils and parents.

Headteachers, with the support of governors, should take a lead in embedding safe internet practices into the culture of the school, perhaps designating a member of the senior management team with responsibility for internet safety. This member of staff should then act as the central point of contact for all safety issues within the school, ensuring that policies are current and adhered to, instances of breaches and abuse are monitored and reported to the headteacher and governors, and that all staff receive relevant information about emerging issues. This overall responsibility for internet safety need not necessarily sit with the ICT co-ordinator or network manager, but all three roles should work closely to ensure that technological solutions to internet safety support classroom practice.

It is recommended that, as a minimum, schools have an acceptable use policy in place to protect the interests of both pupils and staff, and that this is at the heart of practice. This should be linked to other school policies, as appropriate, such as anti-bullying policies and guidance on copyright and plagiarism.

Internet safety policies should be regularly monitored and reviewed, and all staff should be aware of the appropriate strategies they should adopt if they encounter problems.

Additionally, all teachers who use ICT in the classroom have a duty to ensure that pupils are reminded about appropriate behaviour on a regular basis.



Parents also have a key role to play, through promoting internet safety at home. ICT offers the opportunity for young people and their parents to learn together, and internet safety is an excellent topic which can encourage home-school links.

Schools should consider running parents' workshops to embed the messages and achieve consistency between safety guidelines in the home and the school. As part of a DfES initiative, both the NCH [<http://www.nch.org.uk/itok/>] and Childnet International [<http://www.childnet-int.org/safety/parents.aspx>] offer parental support services to schools wishing to host events or obtain leaflets for parents.

The Parents Online website has detailed safety information and links to websites for parents [<http://www.parentsonline.gov.uk/safety/>].





3 Learning benefits of ICT

Research findings suggest that use of ICT can be beneficial. The Becta report, *Secondary Schools – ICT and Standards*, found a clear and positive relationship between good learning opportunities with ICT and higher achievement by pupils in secondary education. By analysing data obtained on schools from Ofsted inspections, supplemented by test and examination data from the Qualifications and Curriculum Authority (QCA), Becta found that pupils with such access to ICT achieve higher results in the core subjects of English, mathematics and science at Key Stage 3 and at GCSE level in general [source: Becta 2003]. Becta's research on primary schools shows similar findings.

A recent study by the DfES investigated the effects of ICT on pupils' motivation. The study – the *Motivational Effect of ICT on Pupils*, conducted in 2003 – examined the impact of ICT on pupils' motivation, alongside related issues such as learning outcomes, behaviour and school attendance. The study found that ICT had a positive motivational impact overall, although this was dependent upon the ways in which ICT was used. ICT typically had a positive impact upon the learning processes of engagement, research, writing and editing, and presentation [source: DfES 2004].

A number of pupils in the study reported that ICT impacted positively on their behaviour outside school: for example, use of the internet and email encouraged more positive activities, longer engagement with school work, deeper and wider discussion with a broader group of friends, and sharing of emotions through chatting. Some secondary school pupils also felt that ICT had a positive impact on their attendance at school or the attendance of others.

Apart from the increasing research evidence that supports the positive effects of the use of ICT in education, there is plenty of anecdotal evidence too. For instance, teachers continue to report that pupils of all ages find the use of ICT highly motivating. By sending emails and designing web pages



pupils are able to communicate with more people than would otherwise be possible. Winners of the 2004 Becta ICT in Practice Awards mention numerous benefits of ICT such as pupils taking responsibility for their own learning and developing confidence in their own abilities [<http://www.becta.org.uk/practiceawards/>].

Many schools are also making use of technology to dissolve boundaries between the home and the school. Access to school intranets outside school hours and laptop lending schemes can help pupils to extend their learning beyond the classroom. In some schools email is being used by pupils and parents to communicate with teachers outside the traditional school day.

The use of ICT offers particular benefits for those pupils with special educational needs (SEN), providing a motivating learning medium. Many learners are attracted to computers and want to learn through them. Software applications incorporating colour, pictures, animations, sound and humour can build on that interest, creating attractive learning opportunities to engage pupils. Information can be presented in different ways, giving pupils more opportunities to connect in ways that suit individual learning styles and strengths. There are also a range of assistive technology tools which can be used with ICT: hardware and software can enable many learners to overcome barriers, supporting physical, sensory and learning difficulties.

Access to ICT can also be beneficial to those pupils who are unable to attend school on a regular basis. It can allow them to still feel part of the school environment, and retain some continuity in their work.





4 Risks associated with using ICT

Alongside the positive educational and social benefits offered by ICT there are, unfortunately, some dangers, particularly for young people. As in any other area of life, young people are vulnerable and may expose themselves to danger, whether knowingly or unknowingly, when using the internet and other technologies. While adult supervision is preferable, it is not always realistic or practical, particularly outside school. Therefore it is necessary to alert young people to the risks they might encounter, and tell them about the safe and responsible behaviours to adopt when using technologies whether at school, at home or in any other setting.

Some of the risks are summarised below.

Exposure to inappropriate materials

There is a risk that when using the internet, email or chat services, young people may be exposed to inappropriate material. This may be material that is pornographic, hateful or violent in nature, encourages activities that are dangerous or illegal, or is just age-inappropriate or biased. One of the key benefits of the web is that it is open to all, but unfortunately this also means that those with extreme political, racist or sexist views also have a free voice.

Schools provide a degree of protection against this sort of exposure, but even the filtering software installed is not always foolproof. Supervision within the classroom can help, but the same level of supervision does not often extend to the other settings where young people access the internet.

It is natural for young people to believe what they read, and often the web appears to have as much authority as the printed word, however undeserved. It is important, therefore, that schools play their part in teaching young people to become critical and discriminating users of materials they find on the web, and equally of information provided through 'direct contact' services such as email and chat.





Physical danger

The threat of physical danger is perhaps the most worrying and extreme risk associated with the use of the internet and other technologies.

A criminal minority makes use of the internet and related services such as chat rooms to make contact with young people. The intention of these people is to establish and develop relationships with young people with the sole purpose of persuading them into sexual activity. Paedophiles will often target specific individuals, posing as a young person with similar interests and hobbies in order to establish an online 'friendship'. These relationships may develop over months or years as the paedophile gains the trust and confidence of the young person, perhaps progressing to other forms of contact such as text messaging as a prelude to meeting in person. These techniques are often known as 'online enticement', 'grooming' or 'child procurement'. The Sexual Offences Act 2003, which came into force in May 2004, includes a grooming offence specifically introduced to combat this abuse of the internet.

There is also a risk that while online a young person might provide information that can personally identify them or others, or arrange to meet people they have met online, so posing a risk to their safety or that of their family or friends.

Psychological danger and online bullying

Online bullying is an unfortunate aspect of the use of new technologies, providing an often-anonymous method by which bullies can torment their victims at any time of day or night.

While a young person may not be in physical danger, they may receive email, chat or text messages that make them feel embarrassed, upset, depressed or afraid. This can damage their self-esteem and pose a threat to their psychological wellbeing.

Legal, moral, financial and commercial considerations

When using new technologies, there is a risk that a young person could do something that has legal, moral, financial or commercial consequences.

E-commerce is growing, and there is a risk that young people may give out financial details, for example the credit card details of a parent, while online. This can result in unexpected consequences and charges. Junk email or spam may provide offers that sound too good to be missed, while premium-rate services on mobile phones offer ring tones, logos and competitions. Additionally, research shows that young people are not able to differentiate between what is advertising and what is not.

Plagiarism and copyright are increasingly becoming issues, particularly in relation to copying of coursework and downloading music or games as popularised by many P2P services.

Inappropriate behaviour

Young people may get involved in inappropriate or antisocial behaviour while using new technologies. Just as in the real world, groups or cliques can form online, and activities that start out as harmless fun, such as voicing an opposing opinion to another member of a chat room, can quickly escalate to something much more serious.

Young people should be taught how to behave online: to avoid being rude, mean or inconsiderate. They should be taught that they should behave in the same way online as they would offline.

Bridging the gap between the home and the school

Schools are relatively protected areas where pupils are able to access a range of technologies under human and technological supervision and monitoring. In the home, however, there is likely to be minimal technological monitoring, and parental supervision may not be to the same degree as that operated in the school environment.



Schools will operate policies which allow pupils access to certain types of ICT (for example, access to email via the school network, or group email addresses), give clear guidelines on how the technology may be used (for example, access to educational chat rooms, but only when used within the classroom context), and impose sanctions for misuse.

However, pupils may then go home and access a whole range of services, such as webmail, chat rooms and instant messaging services. Additionally, they may have access to a mobile phone offering text and picture messaging and, increasingly, new forms of mobile content and services offered via the latest handsets. Therefore it is important that even if schools do not allow the use of a certain technology within the school, they teach pupils how to behave sensibly and appropriately when using it, and educate them about the risks.

Schools also have a role in sharing information and details of good practice with parents. This can help to reinforce the work carried out in school, and ensure that young people receive consistent and comprehensive internet safety advice.

Internet safety and pupils with special educational needs

Where a pupil has a learning difficulty or disability they may be even more vulnerable to deceptive messages offering friendship or opening dialogue on topics of mutual interest.

For example, many pupils with autistic spectrum disorder (ASD) can take messages very literally, and could be persuaded to act upon them. These pupils are likely to need additional advice on safe behaviours and what they should never disclose to others online; they may also need increased supervision. This could include, for example, guidance that before entering dialogue with anyone new, they should always consult a trusted adult.

While this booklet does not highlight internet safety resources specifically for pupils with special educational needs, many of the resources mentioned may be suitable and/or adaptable for this purpose.

Additionally, the Internet Proficiency Scheme, developed by Becta and the DfES, may be a useful resource. Aimed primarily at Key Stage 2 pupils, the scheme aims to develop a set of safe and discriminating behaviours for pupils to adopt when using the internet and other technologies. The scheme consists of an interactive website and a range of teaching resources and activities for pupils – many of the lesson ideas can be adapted to suit the learning styles and previous experience of the pupils involved.

Copies of the packs are available from the DfES publication order line on 0845 60 222 60 or by email [dfes@prolog.uk.com]. Alternatively files can be downloaded as PDF documents from the CyberCafe [<http://www.gridclub.com/cybercafe/teachers/>].



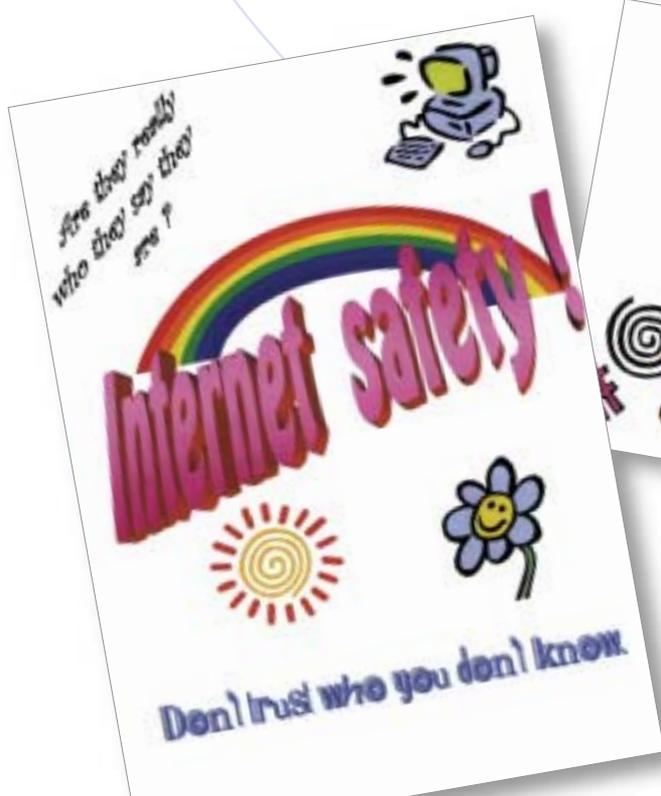
Web Safety

(at Latimer Community Arts College – an 11–18 specialist school in Northamptonshire)

What started off as an ordinary discussion with a group of year 8 students about the web, finished with a range of creative safety leaflets and flyers. Pupils had a lively discussion about uses of the web which developed to include the importance of understanding the safety issues. This gave them the inspiration to develop their own safety messages.

I decided to use the students' experience, enthusiasm and creative talents to build upon their knowledge gained from unit 7.3 of the ICT Key Stage 3 National Strategy. This provided the students with the opportunity to put their desktop publishing skills into practice to develop some of the excellent points they had made in the course of their discussions. The result was a range of exciting, colourful and informative leaflets which helped get the messages across.

Barbara Dunn





5 Using the technologies safely

This section looks at the various technologies, giving background information, an overview of the benefits and risks, and ways of avoiding the dangers. It also includes teaching pointers and signposts to resources for teachers and pupils.

The real-life stories in this section are taken from calls to ChildLine. These stories are often hard hitting, but indicate that the risks and dangers associated with using the internet and related technologies are very real for young people today. All names and identifying details have been changed.

Sections 6 and 7 complement this section, suggesting in more depth areas in which safety messages can be incorporated within the curriculum. They make reference to the National Curriculum programmes of study at Key Stages 3 and 4, and the ICT Key Stage 3 National Strategy, where appropriate.

Please note, inclusion of resources within this booklet does not imply endorsement by Becta, nor does exclusion imply the reverse. Becta does not accept any responsibility for, or otherwise endorse, any information contained within referenced sites, and users should be aware that some linked sites may contain sponsorship or advertising information.

URLs and information given were correct at the time of publication, but may be vulnerable to change over time.

Teachers are advised to check any websites in advance of use to confirm that the content is as expected, and that it is appropriate in tone and level for their pupils to use.

Using the internet

Background

The internet enables users to obtain information and resources, to communicate with each other and to publish information. It effectively consists of a worldwide system of computer networks, in which users at any one computer can, if



they have permission, get access to information made available on other computers.

The World Wide Web, or web, provides easy access to the vast quantity of information and resources available on the internet, and enables people to 'surf' for information. It is made up of millions of pages of information – 'web pages'. These can contain text, images, sound, animation and video, and each page has its own unique name or 'address' (URL). A collection of web pages forming one source of information, commonly created by an individual or organisation, is called a website. Any individual or organisation can create a website, and most ISPs will offer their subscribers free web space on which a website can be hosted.

Web pages are typically arranged within a website in a directory structure (much like you would organise files in directories and folders on your computer). The top-level or index page of the website is referred to as the 'home page'. The URL of this page is the 'domain name', which typically follows a standard format. For example, the home page of the DfES is <http://www.dfes.gov.uk/>.

The amount of information available on the internet is vast, and can often be quite daunting, particularly if you are looking for very specific information. Search engines can help you to refine your search, and make it much easier to find what is required.

Benefits

The internet enables access to a vast range of cultural, scientific and intellectual material, which might not otherwise be freely or readily available. It extends the access to resources far beyond the school walls to museums, galleries and organisations of every kind, and displays many resources interactively so that pupils can experiment and see how things work. It can provide an efficient means of communication as well as a powerful resource for learning.

The internet can also prove an excellent source of information for young people, particularly regarding sensitive issues or topics which they would not feel comfortable seeking advice on in person. It can also remove barriers to communication.

Case studies

Examples of what's good about the internet:

Carlton, 14: 'I wanted to know about a health problem; it was a bit personal and I found the answer on a website. I was too embarrassed to ask my parents or teacher.'

Leila, 17: 'I've known a boy for two years over the internet... we text and email each other. I have a speech problem, and I can't get out the words I want to say. I'm not shy, but on the internet nobody notices my problem – it's great.'

Amanda, 15, talked about her home life, which deeply troubles her just now. There is domestic violence and her parents are divorcing. She self-harms by cutting her arms. 'I found some ideas about how to stop on the net, like squeezing ice cubes in my hands. I tried it and it helps.'

Carlton's, Leila's and Amanda's stories have been taken from calls to ChildLine. All names and identifying details have been changed.

Risks

While the web can be a useful educational tool, there are some risks. Some content on the internet is clearly unsuitable for young people, such as pornography, hate material, or information that encourages illegal activities. While it may be easy to judge the suitability of some web pages, other pages may look appropriate on the surface, but the actual content may be unreliable or unsuitable. Some commercial sites may be inappropriate for young people.

There is also the question of reliability, credibility and validity of information on some websites. In a school setting, teachers will also want to evaluate the educational value of a website, and pupils should be taught to critically assess the materials they find.



Avoiding the dangers

General information on safe use of the internet for schools is available on the Superhighway Safety website [<http://safety.ngfl.gov.uk/schools/>].

There are also some specific issues to consider:

Acceptable use policies

As part of their responsibility for ensuring safe access to the internet, schools should develop an acceptable use policy (AUP). This provides a framework for safe and responsible use of the internet in school, and may give guidance for pupils and parents for using the internet at home. It will typically outline safe and responsible behaviours for pupils, procedures for reporting unsuitable material, and information on protecting the computer network, for example from viruses. It should cover the whole range of technology which might be used, both in and out of school, such as email, chat, instant messaging, camera phones, webcams and weblogs (a form of online diary or journal, containing short, frequently updated posts).

Information on acceptable use policies is available on the Superhighway Safety website [<http://safety.ngfl.gov.uk/developaup>].

The ICT Advice site also provides further guidance [<http://www.ictadvice.org.uk/>]. Search for 'acceptable use policy'.

Evaluating web materials

While there is plenty of reliable information on the web, there is also plenty that is incorrect, out of date or seriously biased. Equally, not all educational materials are age-appropriate for secondary school pupils: they may have been developed for a different audience. The critical evaluation of web resources is therefore necessary to determine the reliability, accuracy and currency of the material. Pupils should be taught the value of this process as part of their core media literacy skills development.

When evaluating materials, pupils might ask:

- Who has published the content? The web address or URL might give some clues.
- Where does the content originate from? It may come from a different source than the person who actually published the site. Does it have authority? Is it free from copyright restrictions?
- Does the content seem up to date?
- Is the content easy to read and understand?
- Does it present a one-sided point of view?
- Does the content provide everything I need?
- Are the links useful?

The Superhighway Safety website provides some useful information on evaluating web resources [<http://safety.ngfl.gov.uk/evaluatingwebresources>].

The ICT Advice site also provides further guidance [<http://www.ictadvice.org.uk/>]. Search for 'evaluate'.

Internet filtering

Most educational ISPs offer a filtered internet service. This can help prevent access to undesirable content, and can filter other services such as incoming and outgoing email. Additional software can be used in school to supplement this service, and many filtering tools are also available for home users.

The Becta Accreditation of Internet Services to Education scheme [<http://ispsafety.ngfl.gov.uk/>] enables schools and other educational establishments to make an informed choice of ISP. The standards of assessment have been developed in consultation with partners in education and industry to ensure reliable and relevant information is provided. The accreditation process makes a technical assessment of filtering services provided by ISPs for factors such as browsing of web-based content, email filtering, blocking and filtering of newsgroups and chat services, and virus alerting. Assessments



of service options such as customised filtering for different user groups are also made.

Further filtering information is also available on the Superhighway Safety website, including a review of internet safety software applications, many of which could also be used in the home setting [<http://safety.ngfl.gov.uk/internetfiltering>].

Remember that although filtering systems are effective tools, they are not completely foolproof, so must be supported by a safe and responsible approach to using the internet at all times.

Internet search tools

The web offers a vast quantity of information, in a wide range of formats. However, having such an extensive resource can also be a major drawback, and locating information quickly and easily may require the use of a variety of search tools and techniques.

Search engines provide a way of searching the internet, either by using a keyword search, or by navigating a directory structure where content is organised into predefined categories.

Searching the internet successfully requires careful planning and definition of the exact information needs. While typing a keyword or phrase into a search engine will quickly provide a large number of websites containing that word, unfortunately the sheer volume of links will be unworkable and the level of potentially useful links will be low. Pupils should therefore be taught the principles of effective searching as part of their core ICT skills development.

Most keyword search engines now offer advanced searching techniques which allow users to define their searches more precisely. Although search commands may vary from one search engine to another, the concepts remain the same, and so the skills acquired are transferable. Many search engines will rank results, placing priority on the first search term, and some may allow searches to be limited to UK sites only. Common words such as 'of' or 'the' are not normally recognised for the purposes of a search, and it is often possible to exclude words

from the results. However there will still be occasions when no amount of refining will result in a manageable number of results. If this is the case, pupils will need to be selective and remember to critically evaluate any information they find.

As an alternative to keyword searching, a menu-based search provides a method of finding specific information by gradually narrowing down the topic through predefined categories. The search engine will divide the information on the web into topic areas, starting with very general topic menus which are gradually refined through choices made by the user until the relevant information is reached. A menu-based search can provide a structured method of searching, but will only return results of those sites classified by the search engine provider.

Many search engines will provide filtering facilities to remove unsuitable sites and advertising from search results, and there are a number of search engines aimed specifically at young people and families. Search Engine Watch [<http://searchenginewatch.com/links/article.php/2156191>] provides tips and information about searching the web, along with a comprehensive list of search engines for young people.

The ICT Advice site provides further guidance on searching the internet [<http://www.ictadvice.org.uk>]. Search for 'search tools'.

Customising web browsers

Most web browsers provide some customisation facilities to allow the settings for security, privacy and content to be adjusted. Refer to the help facility within your browser for further information.

Embedding safe use of the internet in the curriculum

ICT and, specifically, web-based resources, are increasingly being used across the curriculum. It makes sense therefore that guidance on safe use of the internet should be given to pupils wherever and whenever such use occurs.

Schools are encouraged to look for other opportunities for teaching internet safety across the curriculum, rather than as a discrete subject, possibly to cover issues that might not



typically be encountered during in-school use of ICT. Although internet safety is not explicitly referred to within the National Curriculum at present, there are a number of appropriate areas within the programmes of study that offer opportunities to discuss internet safety issues, and these are highlighted within this section.

For the purposes of this booklet we have focused on the curriculum areas of ICT, citizenship and PSHE, and the relevant teaching points from the National Curriculum programmes of study are highlighted below.

The ICT Key Stage 3 National Strategy offers similar opportunities for teaching about internet safety.

See Sections 6 and 7 of this booklet for a fuller discussion of how internet safety can be embedded into the curriculum areas below.

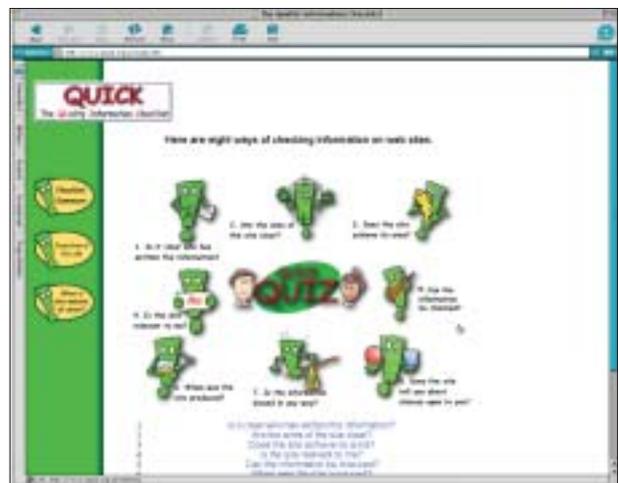
ICT Key Stage 3 National Strategy	Year 7	Finding things out	Using data and information sources Searching and selecting
		Exchanging and sharing information	Fitness for purpose Communicating
	Year 8	Finding things out	Using data and information sources Searching and selecting Organising and investigating Fitness for purpose
		Exchanging and sharing information	
Year 9	Finding things out	Using data and information sources	
	Exchanging and sharing information	Communicating	

Key Stage 3	ICT Citizenship PSHE	1a, 1b, 3c, 4d 1a, 1h, 2a 2f, 3a, 3j, 3k
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Key Stage 4	ICT Citizenship PSHE	1b, 4b, 4c, 6 1a, 1g, 2a, 1b, 1d, 2b, 3c
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Useful resources

QUICK: The Quality Information Checklist
<http://www.quick.org.uk/>



Screen shot reprinted with permission from the Centre for Health Information Quality (CHIQ) and the Health Development Agency (HDA)

The QUICK website is a teaching aid to help young people evaluate the information they find on the internet. It consists of imaginary examples, quizzes and puzzles to allow young people to explore the concepts around information quality. Although many examples are health related, the concepts can be used with any subjects that require information skills.

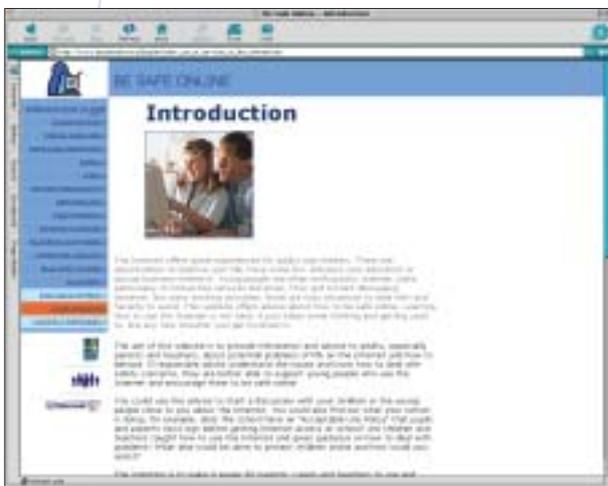
The site is aimed at Key Stages 2 and 3, and in particular years 5, 6 and 7. Some of the resources might seem a little 'young', but the underlying principles are sound.

There is a useful, printable, summary checklist for evaluating information and a teachers' guide.



Be Safe Online

<http://www.besafeonline.org/>



Screen shot reprinted with permission from Learning and Teaching Scotland

The Be Safe Online website, produced by Learning and Teaching Scotland, provides advice and information about internet safety for teachers and parents. The website covers a wide range of topics including:

- using the World Wide Web
- personal web pages
- email
- chat
- instant messaging
- newsgroups
- file sharing
- shopping online
- filtering software
- computer viruses
- bullying online.

FKBKO – For Kids by Kids Online – ‘Web’

<http://www.fkbko.co.uk/EN.php?lang=EN&subject=2&id=0&level=0>



Screen shot reprinted with permission from FKBKO

FKBKO provides a range of internet safety information for children and young people. The ‘Web’ section allows children to:

- find the sites they want by creating their own directory
- search effectively using search engines
- find out where a website is hosted
- know where to report sites that they think might contain illegal content.

Topics are categorised by ‘beginner’, ‘intermediate’ and ‘advanced’.

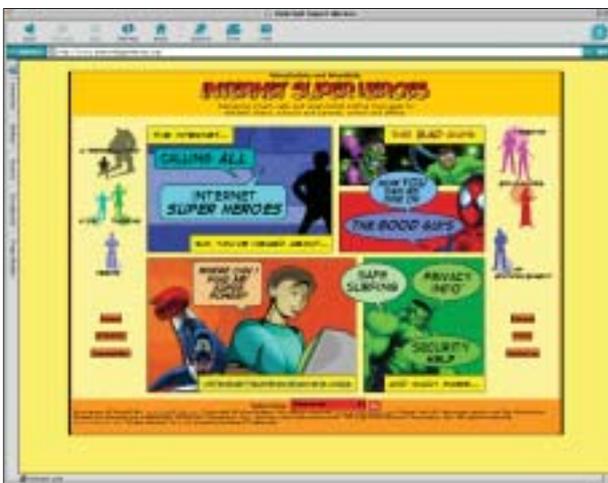
The ‘HQ’ section also provides some useful background information on topics such as:

- How does the internet work?
- How is my computer identified?
- Am I invisible on the internet?
- Who is in charge of IP addresses?



Internet Super Heroes

<http://www.InternetSuperHeroes.org/>



Screen shot reprinted with permission from WiredSafety.org

Marvel super heroes such as Spider-man and the Hulk have joined forces with WiredSafety.org to teach children and young people worldwide about safe, private and responsible surfing.

Internet Super Heroes provides online and offline educational and awareness programmes covering the four Ps of internet safety: privacy, predators, pornography and piracy.

Resources, some of which are still being developed, will eventually include lesson plans covering topics such as piracy and responsible use of intellectual property, cyber-bullying, privacy, internet predators, and digital and information literacy, along with classroom activity sheets and competitions aimed at teenagers.

Zap – ‘Teenagers’

<http://www.zap.eun.org/>



Screen shot reprinted with permission from European Schoolnet

The Zap website, part of European Schoolnet, is a fun, safe and educational place for kids and teenagers.

The internet safety game aims to help young people, aged 12–14, to learn about internet safety. Playing against their parents, young people are required to answer a number of questions on safe behaviour on the internet. A right answer will advance them several paces, while wrong answers will set them back.

This site could be a good home–school link activity to encourage parents to learn more about internet safety issues and work alongside their children in determining appropriate behaviour and boundaries when online.

Zap communities also provide a safe online space within which young people can chat and share links.



See also:

BBC – Becoming WebWise

<http://www.bbc.co.uk/webwise/learn/menu.shtml>

The BBC Becoming WebWise online course contains eight 'trips' to help you become familiar with using the internet. Topics covered by the course are:

- getting started
- finding your way
- more from your browser
- finding stuff
- email
- make it work for you
- using the net safely
- other ways to get online.

Although not particularly aimed at children, some of the materials and quizzes might be suitable for older pupils.

Internet Proficiency Scheme for Key Stage 2 pupils

The Internet Proficiency Scheme for Key Stage 2 pupils, developed by Becta and the DfES, aims to develop a set of safe and discriminating behaviours for pupils to adopt when using the internet and other technologies.

The scheme consists of an interactive website, called CyberCafe, and a teachers' pack consisting of teaching activities, pupils' worksheets, advice and information for teachers on internet safety, and certificates to award on completion of the scheme. Although aimed at Key Stage 2, some of the materials may be particularly useful for introducing internet safety topics to pupils in year 7, or for pupils with special educational needs.

Copies of the packs are available from the DfES publication order line on 0845 60 222 60 or by email [dfes@prolog.uk.com]. Alternatively files can be downloaded as PDF documents from the CyberCafe website [<http://www.gridclub.com/cybercafe/teachers/>].

Using email

Background

Email, or electronic mail, is a system of sending messages over the internet. It is a great way of communicating, and just about anything can be attached to, or included in, an email: text, pictures, sound, animation or movies.

To send or receive emails, you need an email account. These can be set up on an individual computer using email software, accessed over the internet using a web browser (webmail), or both.

With an email account you will be given an email address. These addresses follow a standard format, and are made up of two parts: the mailbox username and the domain name, separated by an '@'. For example, a school email address would look something like `teacher@anyschool.county.sch.uk`, while a personal email address might be `myname@anydomain.com`.

Email is sent and kept on a mail server until a user logs onto a computer and accesses their mail. The email may then be sent to the computer they are working on. Depending on how the account is set up, a copy of the email may remain on the mail server until explicitly deleted.

Benefits

Email can be an extremely valuable tool in schools, encouraging the development of communication skills, and transforming the learning process by opening up possibilities that, conventionally, would not exist.

Teachers have reported that using email helps pupils to take greater care with their spelling (incorrectly spelt email addresses won't go anywhere) and to be more precise with their choice of words, since email encourages brevity and clarity.

Email can also be particularly rewarding for pupils with special needs. Pupils with physical or cognitive impairments may take a long time to create a message, but no one receiving it would know that they have difficulties. Pupils with hearing impairment may find email to be an alternative, and accessible, channel for communication.



Some examples of good practice for pupils using email can be found on the Teacher Resource Exchange [<http://tre.ngfl.gov.uk/>]. Search for 'email'.

Risks

Despite the benefits, email is open to abuse, which may take many forms:

Spam and inappropriate content

Spam is unwanted email that has been sent by a source which may be unfamiliar. Spam will often contain inappropriate content, such as advertising, possibly under the pretence of offering a prize, or pornography.

Spammers gather or 'harvest' email addresses from websites or discussion groups, and there are also companies that specialise in creating email distribution lists.

Flaming

Flaming is the term used for abusive or insulting email sent to one person by another who does not agree with their opinion, often in discussion groups or chat rooms.

Bullying and harassment

Email can facilitate bullying between young people, and it is possible to be harassed with unwanted and obsessive attention via email.

Case study

Claire, 13, called ChildLine in the summer holidays because the bullying she was experiencing at school had continued over the summer by computer. Claire said she hated school and dreaded going back. Her parents and brother said she 'should get over it'.

Claire's story is taken from a call to ChildLine. All names and identifying details have been changed.

Bombing

A bomb is a program that is intended to crash a computer program. An email bomb is a huge message sent to someone's email address in an attempt to make their email program crash.

Viruses

A virus can be sent as an email attachment, and some even pretend to come from people that you know through a process known as 'spoofing' of email addresses. These viruses can cause serious problems, possibly destroying files or allowing hackers to access the hard disk of your computer.

Webmail

Free webmail accounts have inherent dangers. Some service providers allow email addresses to be shared with third parties, resulting in a higher incidence of spam. However, many webmail services do now offer effective email-filtering tools, though often these are optional.

Avoiding the dangers

When young people are using email, there is always a risk that they might receive unsuitable messages. Pupils should be taught the appropriate behaviours to adopt if they receive an inappropriate or offensive email, such as deleting the message, or closing it and seeking advice from their teacher, but never replying to it. This will allow the teacher to go back and check the message, talk through some of the issues, reassure the pupil that it was not their fault that they received such a message, and take any other action as appropriate. Pupils should also be taught how to use email appropriately, and develop suitable writing conventions for the technology.

Listed below are some specific issues to consider for remaining safe when using email:

Acceptable use policies

In addition to providing guidelines for acceptable use of the internet, a school's acceptable use policy should provide



clear guidelines for email use. These might include guidance on appropriate tone and language when sending emails, policies on using webmail accounts, and measures for protecting the school's network against viruses. Schools might wish to share these guidelines with parents as a framework for safe email use for young people when away from school.

Email addresses

Most schools will need to limit the use of pupil's email addresses within school for management reasons, but, in any case, care should be taken to ensure that individual pupils can't be identified via their email address, particularly beyond the school.

A class or teaching group email may be more appropriate for younger children. Individual accounts can be created as children gain the appropriate skills and knowledge to understand the security implications. Increasingly schools using virtual learning environments (VLEs) make use of email within the school, and these systems can also be accessed from outside school. Particular caution must be taken when using email beyond an internal email system.

The Superhighway Safety site provides guidance on using email in schools [<http://safety.ngfl.gov.uk/emailinschools>].

Webmail

It is likely that use of webmail accounts will not be permitted within school. However, pupils may use webmail outside school. Teach pupils to check for privacy statements when signing up for webmail accounts, and not to consent to their details being shared with third parties, to minimise the amount of spam they receive. Many webmail accounts will also provide useful tools for filtering email.

Email bullying

Pupils should be made aware of the characteristics of email bullying, the effects it can have on the recipient, and strategies for dealing with it.

Filtering

In the same way that internet access may be filtered, email messages should also be filtered for inappropriate content and spam.

The Becta Accreditation of Internet Services to Education scheme [<http://ispsafety.ngfl.gov.uk/>], as already mentioned in the internet section, includes information on email filtering, as does the review of internet safety software applications on the Superhighway Safety site [<http://safety.ngfl.gov.uk/internetfiltering>].

Remember that although email filtering systems are effective tools, they are not completely foolproof, so must be supported by a safe and responsible approach to using email at all times.

Viruses

Email attachments should always be treated with caution. Some viruses can attach themselves to messages without the sender's knowledge, and the recent surge in spoofing of email addresses means that messages containing viruses can appear to be from someone you know and trust. A virus checker should be used on all outgoing and incoming email, and always before opening or saving any attachment.

Embedding safe use of email in the curriculum

See also Sections 6 and 7 of this booklet for a fuller discussion of how safe use of email can be embedded into the curriculum areas below.

ICT Key Stage 3 National Strategy	Year 7	Exchanging and sharing information	Fitness for purpose Communicating
	Year 8	Exchanging and sharing information	Communicating
	Year 9	Exchanging and sharing information	Communicating

Key Stage 3	ICT	3c
	Citizenship	3c
	PSHE	3k

Key Stage 4	ICT	4b
	Citizenship	3c
	PSHE	–



Useful resources

FKBKO – For Kids by Kids Online – ‘E-mail’

<http://www.fbkko.co.uk/EN.php?lang=EN&&subject=3&&id=0&&level=0>



Screen shot reprinted with permission from FKBKO

The FKBKO ‘E-mail’ section allows young people to:

- find out more about the true sender of email, by discovering their IP address and tracing the email back to a likely source
- consider ‘netiquette’ when writing emails.

Topics are categorised by ‘beginner’ (how does email work?, registering headers, IP addresses), ‘intermediate’ (tracing your emails) and ‘advanced’ (email security, filters and blocks).

Websafe Crackerz – ‘Spam Corp.’

<http://www.websafecrackerz.com/>



MSN® screen shot reprinted with permission from Microsoft Corporation

Based on a mock business website, the Websafe Crackerz ‘Spam Corp.’ section tells all about how lucrative the practice can be for spammers.

Topics covered range from the common myths about spam, how email addresses are sourced, and mobile spam.

There are also a number of spam-avoidance tips such as using safe usernames and filters, and recognising and reporting spam scams.

See also:

Be Safe Online – ‘Email’ section

<http://www.besafeonline.org/>

This section of the Be Safe Online site discusses how email works, and gives a good summary of some of the problems which can be encountered.

ChatDanger

<http://www.chatdanger.com/>

The ChatDanger website is designed to inform children and young people about the potential dangers in interactive areas



online, and services, such as email, where young people can be in touch with people that they don't know.

Kidsmart

<http://www.kidsmart.org.uk/>

The Kidsmart website has a new presentation for secondary school pupils covering areas such as email, chat, mobile phones and P2P networks. The presentation is accompanied by a guide and script for teachers.

NetSmartz Teens – Angela's Experience

<http://www.netsmartz.org/resources/reallife.htm>

This case study shows how flaming in a chat room can escalate to threatening messages by email. The story shows how Angela dealt with the situation.

Using chat and instant messaging

Background

Chat is a way of communicating with other people in real time over the internet in virtual meeting places called 'chat rooms'. There are many different chat rooms available on the internet. They can be a dedicated part of a website, or a service offered by an ISP.

Users normally have to register in a chat room by choosing a username and password; the username is often a pseudonym or false name. Normally there will be a list of users currently chatting, and they will be alerted when someone new enters the room. To contribute to the chat, the user can type messages into the message box, and the message is then shown on screen for all to see and respond to if they wish. Users can also enter a chat room without contributing to the discussion, but still be able to see what others are saying. This is known as 'lurking': it's an accepted practice, and is a good way of familiarising yourself with how a chat room works.

Some chat rooms are public and can be joined by anyone, while others are private and can only be used by invited chatters and specific groups. Many chat rooms also offer a 'whispering' or private chat room facility, where users can chat

privately without the rest of the room seeing the conversation.

Instant messaging is a form of online chat which is private between two people. It is not moderated, and cannot be joined by others. When you send an instant message, it goes straight to the person you sent it to, and appears on their computer screen almost immediately. Some services also allow the sending of files, or even the ability to conduct voice conversations over the internet. Instant messaging is also known as IM or IMing. MSN® Messenger, Internet Relay Chat (IRC) and ICQ ('I seek you') are examples of instant messaging programs.

To use instant messaging, you will need to install a piece of software on your computer, as will anyone you want to exchange instant messages with.

Lists of contacts you wish to exchange instant messages with are called buddy lists or contact lists. Typically, you must invite people to be on your buddy list, and agree to be listed on other people's lists. When a user logs onto the internet, their computer registers them as being online with the instant messaging service. When another user on the same buddy list connects, each will see that the other person is online. The users can then exchange instant messages. It should not be possible for anyone to add you to a buddy list, and hence see when you are online, without your consent.

Benefits

Although mainly regarded as a leisure activity, chat rooms can also provide educational benefits. Pupils are able to chat with peers anywhere in the world, in real time, sharing experiences, comparing lifestyles or working collaboratively. Online chats are frequently hosted with a notable figure, such as a successful business person or television personality, giving access to a wealth of information and experience that just would not be possible for pupils otherwise.

Examples of using chat in the classroom can be found on the Superhighway Safety website [<http://safety.ngfl.gov.uk/chatinclassrooms>].



Further information is available on the ICT Advice site [<http://www.ictadvice.org.uk/>]. Search for 'chat'.

Instant messaging can, like chat, provide many benefits as an instant and effective method of communicating.

Risks

Chat rooms have an element of anonymity, so young people often talk about things they may not have the confidence to say face to face. They can pretend to be someone else: older, smarter and more popular. While this can be a positive aspect for some, others misuse this facility. The use of pseudonyms is an accepted and encouraged practice in chat rooms, and again while this can protect anonymity, it also means that you can never be sure who you are really chatting to.

Chat rooms have unfortunately attracted a criminal element, with paedophiles using the anonymity offered to 'groom' young people: that is to develop relationships online with the aim of persuading them into sexual activity in the real world.

Just like at school, groups can be formed in chat rooms, often using an invented set of acronyms as a way of keeping conversations private, and excluding others from the discussion. Unfortunately, this can also lead to bullying.

With instant messaging, others are notified when a user signed up to the service goes online. This is the reason it works so well. However, if used on a shared computer, the instant messaging service may automatically sign on when another user connects to the internet, so giving a misleading impression of who is online. There may also be an issue of privacy in the level of detail which is required to register with an instant messaging service. This information could potentially be made available to others.

Avoiding the dangers

Many schools will limit access to services such as chat and instant messaging, so many of the issues may be associated more with use at home than at school. However, it is important that pupils are made aware of the risks and of ways of avoiding them, as part of their core ICT skills development.

Acceptable use policies

Schools' acceptable use policies should also provide guidelines for using chat and instant messaging services, both in school and beyond. This information should be shared with parents, particularly as use of these technologies, with the associated risks, is likely to occur out of school.

Keeping personal information private

Anyone who uses a chat room or instant messaging service should be careful about the amount of personal information they reveal to the people they are chatting to. This is particularly important for young people to remember – they may feel they know the person they are chatting to very well, especially if talking about intimate or sensitive subjects.

'Personal information' extends beyond the obvious details such as name, age and location, to information such as extra-curricular activities, names of friends, or details that may be particular to your location – all these details can be pieced together to form a very detailed profile of an individual. This could potentially lead to an individual being identified or even contacted in person.

Case studies

Amy, 14, called ChildLine because she had visited a chat room on the computer after school. She was scared – although she had given a false name and age in the chat room, she had given her mobile number and now she was receiving obscene messages.

Josie, 13, called because she was wondering if it was safe to meet a boy she had been chatting to online. 'I've known him for ages in the chat room, and I really like him. I'm supposed to meet him on Saturday, but I'm not sure I should go.'

Sammy, 16, said she had made friends with a boy on the internet and they had arranged to meet. 'He said he was the same age as me, but when I got there, there was just this man who looked a lot older. I didn't talk to him, I just came back home.'



Carrie-Ann, 14, told the ChildLine counsellor: 'Me and my friend Julie met this boy in a chat room who said he was 16. He got Julie's phone number and now he won't stop ringing us. He sounds like he's older.'

Dee, 15, rang ChildLine because a man had forced her to have sex with him. 'I met him in a chat room and then we said we'd meet up. But he wasn't like I thought. I feel like it's my fault.'

Sangeeta, 14, had visited a chat room on the computer after school. She had given a false name and age in the chat room, but she had also given her mobile phone number. 'I'm getting really horrible messages, and I'm scared.'

Daniel, 16: 'I met this guy in an internet chat room. We got chatting and he said he was the same age as me. We were getting on really well, so we swapped email addresses and phone numbers. But then he emailed me a photo which makes him look at least 50, and he said some strange things. He keeps calling my mobile and I don't know what to do.'

One girl did not give her name or age: 'I've given my mobile phone number to someone over the internet. I think he's a lot older than me, and I've told him not to phone, but he still does. What can I do?'

These stories have been taken from calls to ChildLine. All names and identifying details have been changed.

If registration is necessary to use chat or instant messaging services, pupils should ensure that they give as little personal information as possible, and should look for clear privacy statements stating that the information they provide will not be made publicly available. It is always best to decline to appear in member directories or similar, where your details will be made available for all to see.

Moderated chat rooms

Some chat rooms are monitored or moderated. This means that there is either a human moderator checking what is being

said and ensuring that contributors stay on topic (proactive monitoring), or technology that monitors the conversation and alerts a moderator if it detects any unsuitable chat going on (reactive monitoring). Proactive chat rooms are best in an educational context as the moderator is able to step in and ensure that the conversation remains focused and on topic.

Additionally, all good chat rooms should have clear policy and privacy statements, an archive of previous conversations and an outline of forthcoming topics.

Outside school, it is likely too that young people will come across unmoderated chat rooms, so it is essential that they are aware of the safe and responsible behaviours to adopt when using chat.

Harassment

Pupils should be taught what to do if they suffer abuse or harassment in a chat room. First they should not respond in anger, but should instead save a copy of the conversation either using a 'log the chat' function, or by copying and pasting or using 'print screen' – the FKBKO website gives some useful tips on how to do this [<http://www.fkbko.co.uk/>]. The chat room moderators or service providers should be contacted, giving as much detail as possible, including usernames, dates and times. The service providers can then take appropriate action such as warning the offending user that their behaviour is unacceptable, or banning them from the service completely.

If harassed on instant messaging, users should contact the service provider giving the nickname or ID, dates, times and details of the problem. The service provider will then take appropriate action, which could involve a warning or disconnection from the instant messaging service. It might also be worth re-registering for instant messaging with a new user ID.

Buddy lists

Pupils should only add people that they know to their buddy list, and should always use an instant messaging service which prevents others from adding themselves to buddy lists without the owner's permission. It may be possible to adjust privacy settings in the software to prevent this from happening.



Automatic login

Many instant messaging programs automatically log registered users on when they access the internet. This could be an issue, particularly when computers are shared, meaning that a 'buddy' who is apparently online may be the brother, sister or other family member of the person with the instant messaging account.

Young people should always check that the person they are exchanging instant messages with is who they think they are, perhaps by using a simple password and response as the first message of an instant messaging session. It may also be possible to adjust privacy settings in the instant messaging software to always ask for a password before signing in a user.

Some software also has the facility for users to appear offline if they don't wish to receive messages at that time.

Viruses

Care should be taken when sending or receiving attachments via instant messaging, and, as with email attachments, they should always be checked for viruses.

Embedding safe use of chat and instant messaging in the curriculum

See also Sections 6 and 7 of this booklet for a fuller discussion of how safe use of chat and instant messaging can be embedded into the curriculum areas below.

ICT Key Stage 3 National Strategy	Year 7	Exchanging and sharing information	Fitness for purpose Communicating
	Year 8	Finding things out	Organising and investigating
	Year 9	Exchanging and sharing information	Communicating

Key Stage 3	ICT	3c
	Citizenship	3c
	PSHE	2f, 2g, 3a, 3j, 3k

Key Stage 4	ICT	4c, 6
	Citizenship	3c
	PSHE	1b, 1d, 2b, 3b

Useful resources

Bullying Online – 'Staying safe in cyberspace'
http://www.bullying.co.uk/children/internet_safety.htm



Screen shot reprinted with permission from Bullying Online

Bullying Online is an online help and advice service combating all forms of bullying.

Recognising that many young people that have lost friends through being bullied in the real world may turn to the internet to make new friends, the 'Staying safe in cyberspace' section gives tips for staying safe in chat rooms.

The site provides information for pupils, teachers and parents.



ChatDanger
<http://www.chatdanger.com/>



Screen shot reprinted with permission from Childnet International

Childnet International's ChatDanger website is designed to inform children and young people about the potential dangers in interactive areas online, and to give advice to enable them to keep safe while using such services.

The website covers those services where children can be in touch with people that they don't know, and this includes chat, instant messaging, online games, mobile phones and email. For each of these services the website provides case studies and safety advice, as well as practical advice enabling children and young people to be smart and stay safe online.

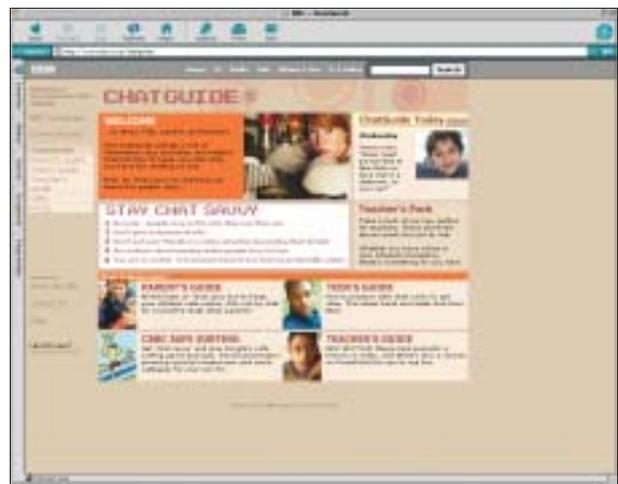
There is also an interactive Back Chat game for teenagers. Using a 'Blind Date'-style approach, you get to ask a mystery person four questions about themselves. Once you've heard all the contestants' answers, pick your favourite and see them close up. It's worth remembering that people online aren't always who they say they are!

The 'Chat in schools' section provides useful background information on chat, guidelines on how to evaluate chat

rooms, and examples of chat rooms which are suitable for use in the classroom.

The site also contains a guide for parents.

ChatGuide
<http://www.bbc.co.uk/chatguide/>



Screen shot reprinted with permission from the BBC

The BBC ChatGuide website provides a range of resources aimed at children, teenagers, parents and teachers.

The Key Stage 3 teachers' pack provides resources to assist with providing a lesson on chat safety for teenagers. The downloadable pack includes:

- ChatGuide lesson plan
- students' internet diary
- ChatGuide video or presentation
- quiz, to accompany the video or presentation
- notes for teachers.

A Key Stage 2 version of the chat safety pack is also available.

The website also provides some useful frequently asked questions (FAQs) giving background information about chat



and instant messaging, along with examples of the language of chat and the 'smileys' or 'emoticons' used to convey feelings.

The teens' guide provides a range of tips to help teenagers practise safe chat. There are also links to 'cool communities' and 'top sites', and details of support services, such as ChildLine.

A ChatGuide booklet for parents is also available on the website as a Word or PDF document which schools can print out and give to parents and carers.

FKBKO – For Kids by Kids Online – 'Chat'

<http://www.fbkko.co.uk/EN.php?lang=EN&&subject=4&&id=0&&level=0>



Screen shot reprinted with permission from FKBKO

The FKBKO 'Chat' section prompts young people to:

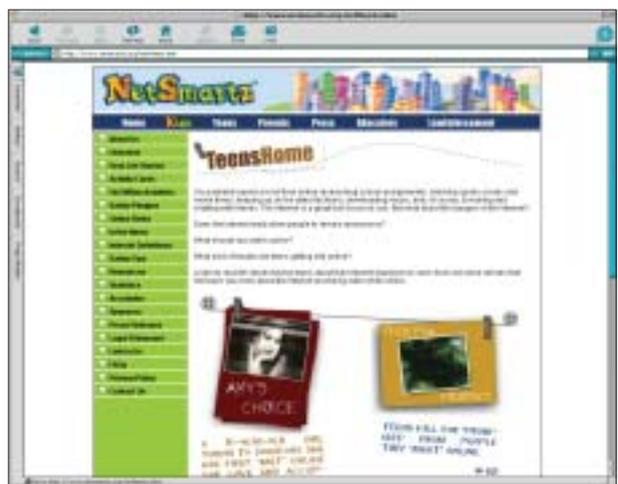
- think about the options available to them when using chat rooms
- question the real identity of other chat users
- save their chat conversations
- know how to complain about other chat users.

Topics are categorised by 'beginner' (clever chatting, instant messenger programs, profiles, registering, and terms and

conditions), 'intermediate' (equipping yourself to chat and exchange instant messages, and saving chat) and 'advanced' (gathering information using Netstat).

NetSmartz Teens

<http://www.netsmartz.org/netteens.htm>



Screen shot reprinted with permission from the National Center for Missing & Exploited Children® (NCMEC) and Boys & Girls Clubs of America (BGCA)

The NetSmartz Teens section provides a number of hard-hitting case studies covering different aspects of the risks of using chat rooms.

- **Teen PSA: Promises** warns young people of the dangers of falling for promises from people they first 'meet' online.
- **Julie's Journey** tells the story of a 13-year-old girl who left home for three weeks with a convicted murderer after developing a relationship online.
- **Amy's Choice** gives an account of the risks of meeting people in the real world that you have first 'met' while chatting.
- **Tracking Teresa** shows how easy it is to find personal information from even the smallest details provided while chatting.

The site is US-based, but the general safety messages still hold.



Websafe Crackerz – ‘Blah Blah Blah’
<http://www.websafecrackerz.com/>



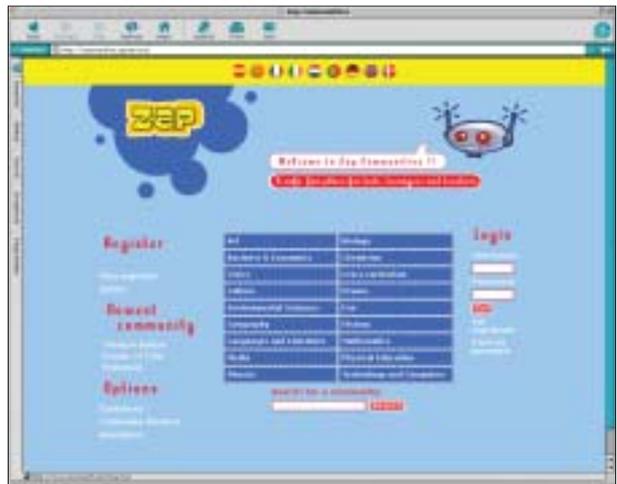
MSN® screen shot reprinted with permission from Microsoft Corporation

The Websafe Crackerz ‘Blah Blah Blah’ section provides a wealth of information on staying safe when using chat or instant messaging services.

Topics covered range from discovering and protecting your online presence to saving information and reporting problems online.

The ‘ASL files’ page explains common intimidation and grooming techniques used by abusers to trick young people into trusting them, while ‘Brad’s story’ explains how easy it is to find yourself with people you don’t really know on your messenger buddy list.

Zap Communities
<http://communities.zap.eun.org/>



Screen shot reprinted with permission from European Schoolnet

Zap Communities are password-protected online spaces where you can discuss, chat, send e-cards, share links or files, and more. There are online groups of children and teenagers, plus a few teachers. The communities are monitored by the Zap team to ensure that they are safe.

To become a full member, a young person must ask a teacher to register for them.

See also:

BBC

The BBC website has a range of materials on chat room safety, in addition to the ChatGuide service already mentioned above. These include:

CBBC – ‘Safe surfing’

http://news.bbc.co.uk/cbbcnews/hi/find_out/guides/tech/safe_surfing/

This site, specifically aimed at children and young people, provides a range of information on staying safe online, including sections on staying safe in chat rooms and during private chat.



BBC Webwise – ‘Ask Bruce’, questions about chat
<http://www.bbc.co.uk/webwise/askbruce/articles/chat/index.shtml>

This is a FAQs-type service with questions and answers about chat and instant messaging.

Radio 1 Onelife – ‘Personal’
<http://www.bbc.co.uk/radio1/onelife/personal/index.shtml?safety#topics>

This website provides information on online safety, including ways to chat, how to chat and chatting safely, which may be suitable for older pupils. The site also provides information on a range of issues affecting young people and young adults, and, as always, teachers are advised to review resources prior to use in the classroom to assess their suitability.

Be Safe Online
 Learning and Teaching Scotland’s Be Safe Online website provides internet safety advice on a number of topics. These include:

Be Safe Online – ‘Chat’
<http://www.besafeonline.org/>
 This section outlines how internet chat works, along with common problems and links to useful websites.

Be Safe Online – ‘Instant messaging’
<http://www.besafeonline.org/>
 This section describes instant messaging, and discusses some problems that may be encountered.

Kidsmart
<http://www.kidsmart.org.uk/>
 As mentioned in the ‘Using email’ section, there is a presentation on the Kidsmart website covering areas such as chat, email, mobile phones and P2P networks. The presentation is accompanied by a guide and script for teachers.

Using mobile phones and the mobile internet

Background

Mobile phone use and ownership by young people is growing. The Young People and ICT survey 2002 found that personal ownership of mobile phones by Key Stage 3 pupils was 52 per cent, and 68 per cent for Key Stage 4 pupils. Across the entire range of the survey, 5–18 years old, girls were more likely to own a mobile phone than boys (41 per cent and 30 per cent respectively). It is likely that many more young people have access to mobile phones, even if they don’t own them.

Mobile technologies have developed rapidly over recent years, and continue to do so, and a range of services are now available from mobile handsets.

The Short Message Service (SMS) system enables users to send and receive text messages via mobile phones. Messages, which can include words or numbers, are usually short, and replace a full conversation with someone, particularly if the other user is not available to take a voice call. Messages are usually created from the mobile phone keypad, often using abbreviations. SMS messaging is also known as text messaging, mobile text messaging or texting.

The Multimedia Message Service (MMS) allows the sender to incorporate text, sound, images and video into their message. Messages are sent as multimedia presentations in a single entry, as opposed to text files with attachments as with many other forms of electronic communication. MMS also provides support for email addressing, so that messages can be sent from phone to email and vice versa. The Enhanced Messaging Service (EMS) provides similar features on some phones. These types of messaging are also known as multimedia messaging, mobile multimedia messaging and picture messaging.

Increasingly, mobile phones and similar devices connected to the mobile networks are available with enhanced features, including colour screens, integrated still or video cameras and internet browsers, and can be used to access a growing variety of content. These advanced features are



accompanied by an increasing ability within the mobile operators to offer faster data connections over the 2.5 and 3G (third generation) networks.

In addition to standard mobile telephony services such as voice calls and text messaging, new services typically include:

- video messaging
- two-way video calling
- mobile access to the internet
- entertainment services in the form of video streaming and downloadable video clips from films or sporting events, and music, horoscopes and games
- location-based services, such as maps, route planners and the ability to find services based upon the current location of the mobile phone user.

Some of the above services are already available via the existing networks and handsets, but because 3G handsets and networks make use of faster connections and more advanced technology, we can expect their usage to become more widespread.

Newer handsets capable of receiving these services have traditionally been expensive and only available to customers on contract, so limiting their availability to young people. However, this is changing: handsets are getting cheaper all the time, and the first pay-as-you-go video mobile was introduced early in 2004. Although these are only being sold to people who can prove that they are over 18, young people may still be able to access such services, for example if using a handset owned by a parent or older sibling.

Benefits

Mobile phones offer great opportunities for young people. They can offer freedom, independence and a great way to communicate with friends, and, increasingly, a source of mobile entertainment.

Other positive benefits include the safety aspects of both being able to make contact and be contacted, and acting as a location finder for emergency services.

Risks

Potential dangers of mobile phones can be grouped into several key areas:

Exposure to inappropriate materials

Children and young people may be exposed to material that is pornographic, hateful or violent in nature or encourages activities that are dangerous or illegal. Equally, content may simply be age inappropriate, inaccurate or misleading.

At the moment there appear to be no technical solutions to filter content and block unwanted contacts via mobiles, although this issue has now been raised with all the companies concerned, so we can expect that situation to change, but it may not do so for some time. The most likely change, in the short term, is for 3G devices for children to only have access to a limited range of services or places.

Physical danger

The risks when accessing the mobile internet are the same as, or possibly greater than, with fixed internet use – a child may make inappropriate ‘friends’, perhaps providing information or arranging a meeting that could risk their safety or that of family or friends. As mobile phones are such personal and private devices it is difficult for parents to supervise access and contacts in the same way as they would with a PC in the home. Mobile phones are typically always on, and hence a child is always contactable and always vulnerable.

Mobile phones have also been used as a link in the grooming process – where an adult will make contact with a young person in a chat room with the intention of luring them to an offline meeting for the purpose of sexually abusing the young person. Paedophiles have been known to provide their victims with mobile phones as a progression from online chat, so providing a direct route for the ‘friendship’ to develop.



The rich content capabilities of 3G phones mean that young people may be sent inappropriate images or videos, or be encouraged to send back images or videos of themselves using integrated cameras. The integration of cameras within mobile phones may also result in photos of children and young people being taken and circulated or posted on websites without their knowledge or permission.

A new generation of services may also provide more opportunities for personal contact, for example by chat, online gaming or dating services.

Location-identification capabilities may mean that it is possible to pinpoint the exact location of children and young people. While this may be welcomed by parents keen to know where their child is at all times, it is not difficult to see how misuse of the technology could arise.

Additionally, mobile phone theft is an increasing problem. More than 710,000 phones were stolen in 2000-01, and nearly half the victims were under 18 [source: *Out of Your Hands?*; see 'Useful resources' section below].

Online bullying

Bullying by mobile phone is particularly harmful. Previously, bullying was mainly an activity conducted in the playground or on the way to or from school, and often the victim could escape for a while to the safety of their own home. Bullying by mobile phone, however, can happen at any time, day or night, making it very difficult to ignore.

With the increase in Bluetooth-enabled mobile phones, 'Bluejacking' presents a further issue. Bluejacking is the process of sending anonymous text messages to other Bluetooth phone users in close proximity, using Bluetooth short-range radio. This technology offers bullies a further way of tormenting their victims.

The risk of being Bluejacked can be minimised by setting the phone not to accept such messages, or by not advertising its presence if Bluetooth is enabled.

Case studies

Fourteen-year-old Karen is asthmatic and her dad bought her a mobile phone for use in emergencies. She received two threatening text messages: 'In five days you'll be dead' and 'You must do what we say, wait for our next call.' Karen thought they might be from two girls in her class who used to be her friends. She was very upset and didn't know who to talk to about the threats.

Danny, 12, called ChildLine because he was being bullied. 'They keep kicking and punching me. They send me horrible text messages on my mobile. I've been thinking about committing suicide. I tried to commit suicide once by taking an overdose.'

Fifteen-year-old Aisha told her ChildLine counsellor she was being 'threatened and mentally bullied' by her former best friend Linda. Aisha had been through quite a lot over the last two years as her mum had died of cancer and she had to take time off school as her hair started to fall out. Aisha said she was really upset by text messages Linda had started sending her. Linda was threatening to kill her and calling her names like 'slag' and 'prostitute'.

Karen's, Danny's and Aisha's stories have been taken from calls to ChildLine. All names and identifying details have been changed.

Legal, financial and commercial considerations

With the fixed internet there are concerns that a child could do something that has legal or financial consequences such as giving out a parent's credit card details or doing something that contravenes another person's rights. Plagiarism and copyright are particular issues which are associated with the internet, especially in relation to downloading music or games. Research also shows that children are not able to differentiate between what is advertising and what is not.



Again, all of these issues could potentially increase with the mobile internet with easy access to chargeable content in the form of games, downloads, ring tones, logos and other services – all of which are particularly attractive to children and young people. The facility to pay for goods and services using mobile phones as an ‘electronic wallet’ is also set to increase.

Spam by text message is already a growing problem, and the rich media capabilities of 3G devices will undoubtedly mean that advertisers become more sophisticated in their campaigns.

The first-ever computer virus spread by mobile phone was discovered in mid-2004. Although in this instance the virus was found to be harmless, only time will tell if mobile phone viruses are likely to become a real issue.

Avoiding the dangers

The dangers and risks associated with using mobile phone services can be reduced through effective education about the safe and appropriate behaviours to adopt when using this technology. In common with general internet safety recommendations, young people should be taught the importance of keeping personal information private, the appropriate behaviours to adopt when using mobile phones, the need to critically evaluate any information they find or receive, and the importance of seeking advice from an adult if they see any content or are contacted in a way which makes them feel uncomfortable. Some specific guidance follows:

Abusive messages

Abusive messages are sometimes sent. When alerted, the mobile phone service provider will help to trace where the message came from and block any further messages from that number. Keeping a note of the times and dates of abusive messages may help to identify the sender. As a last resort, mobile service providers can change a mobile phone number.

Bullying by mobile phone

Bullying by text message has become an unfortunate result of the convenience that SMS and MMS offer. If being bullied by

text message, young people should immediately seek help from a teacher, parent or carer. They should not respond to the messages, but should keep a detailed diary, recording information such as the content of the message, the date, time and caller ID.

Spam by text or multimedia message

Text messages received from an unknown number are likely to be spam. Such messages should be deleted, or, if in doubt, pupils should be encouraged to ask an adult for advice. Young people should not be tempted to respond to spam in any form, even if wild promises or incentives are offered for replying.

New forms of content

The mobile phone operators in the UK are taking the concerns arising from new forms of mobile phone content very seriously. They have recently developed a code of practice for the self-regulation of new forms of content on mobiles in an attempt to alleviate some of these concerns.

The code aims to protect all mobile phone users, with some specific provision for the protection of children and young people. It provides guidance on: new forms of commercial content services where these provide adult content and experiences; internet access provided by the mobile operators; and combating illegal content hosted by third parties on mobile network facilities. It does not, however, cover personal communications between individuals, although the mobile phone operators do recognise that they have an important educational role where new services offer opportunities to communicate in ways that have not previously been possible.

See the Superhighway Safety website for further information on new forms of content on mobile phones, and the provisions of the code of practice [<http://safety.ngfl.gov.uk/mobilephones>].

Mobile phone theft

Young people can take some practical steps to protect themselves from mobile phone theft. For example: keeping a



phone out of sight when not in use; using it discreetly; and using the PIN code feature (if available) when the phone is not in use. It also makes sense to keep a note of the IMEI number of the handset (a unique 15-digit serial number) in a safe place. This can be found by looking behind the battery of the phone, or by keying in *#06#.

In recent years, a mobile phone database has been created to block stolen and lost mobile phones so that they will not work on any UK mobile network, therefore making a stolen phone worthless. The IMEI number of lost or stolen phones should be reported to your network operator or by calling 08701 123 123. You should also report the theft to the police. The Immobilise Phone Crime website provides further details [<http://www.immobilise.com/>].

Young people should also be taught not to be tempted by offers of cheap mobile phones from friends or acquaintances. Buying phones in this way just encourages the cycle of crime, and chances are the handset won't work anyway if its IMEI number has been blocked.

Embedding safe use of mobile phones in the curriculum

See also Sections 6 and 7 of this booklet for a fuller discussion of how safe use of mobile phones can be embedded into the curriculum areas below.

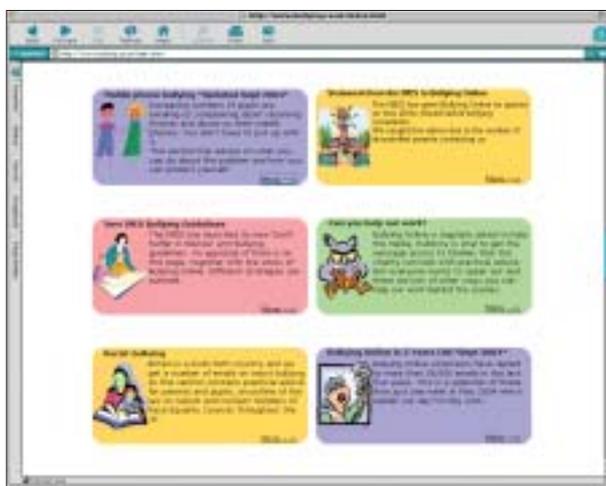
ICT Key Stage 3 National Strategy	Year 7	Exchanging and sharing information	Fitness for purpose
	Year 8	–	
	Year 9	Exchanging and sharing information	Communicating

Key Stage 3	ICT	3c
	Citizenship PSHE	3c 2f, 2g, 3a, 3j, 3k

Key Stage 4	ICT	4c
	Citizenship	3c
	PSHE	1d, 2b

Useful resources

Bullying Online – 'Mobile phone bullying'
http://www.bullying.co.uk/children/mobile_phone.htm



Screen shot reprinted with permission from Bullying Online

Bullying Online is an online help and advice service combating all forms of bullying.

Recognising a growing problem, the 'Mobile phone bullying' section gives tips on how to protect yourself, and information on how the law can help.



FKBKO – For Kids by Kids Online – ‘Mobiles’

<http://www.fkbko.co.uk/EN.php?lang=EN&&subject=7&id=0&&level=0>



Screen shot reprinted with permission from FKBKO

The FKBKO ‘Mobiles’ section tells young people about all the new and exciting things that mobile phones can do, or will be able to do in the future, and shows them how they can protect themselves from mobile phone theft.

Beginners’ topics are:

- BRITT your phone
- IMEI
- Metiquette
- mobile bullying
- mobile phone theft
- more than just a telephone.

Out of Your Hands?

Hard-copy and CD-ROM resource for 11- to 14-year olds.

Website [<http://www.outofyourhands.com/>] for 15- to 17-year-olds.



Screen shot reprinted with permission from the Home Office

The ‘Out of Your Hands?’ free citizenship resource for Key Stage 3 consists of hard-copy materials and a CD-ROM, designed to tackle the problem of mobile phone crime.

Aimed at 11- to 14-year-olds, the CD-ROM offers an interactive, peer-led approach to dealing with the issues of mobile phone crime, including how to prevent it, and what to do if you have your phone stolen. There are also accompanying teachers’ notes.

The pack has been produced on behalf of the Home Office and the Mobile Industry Crime Action Forum, and is available from:

Out of Your Hands?
Hamilton House
Freepost MID25654
PO Box 6256
Corby NN17 4BR

Email: outofyourhands@educationconnections.co.uk

A website based on the CD-ROM is also available. It follows the same themes as the CD-ROM, but is aimed at an older audience of 15- to 17-year-olds.



Websafe Crackerz – 'I H8U.com'
<http://www.websafecrackerz.com/>



MSN® screen shot reprinted with permission from Microsoft Corporation

The Websafe Crackerz 'I H8U.com' section covers abuse in its many forms such as online abuse, mobile phone abuse, bullying, online impersonation and self-abuse.

The site also provides information on reporting abuse, in addition to links to sources of help and support.

See also:

ChatDanger
<http://www.chatdanger.com/>

As mentioned in the 'Using email' section, the ChatDanger website is designed to inform children and young people about the potential dangers in interactive areas online and technologies, including mobile phones, where young people can be in touch with people that they don't know.

Kidsmart
<http://www.kidsmart.org.uk/>

As mentioned in the 'Using email' section, there is a presentation on the Kidsmart website covering areas such as mobile phones, chat, email and P2P networks. The presentation is accompanied by a guide and script for teachers.

Using P2P networks and services

Background

Peer-to-peer (P2P) networking, also known as file sharing, is a distributed network architecture which can allow users to share files, computing capabilities, networks, bandwidth and storage. Users connect to each other directly, without the need for a central point of management. File-sharing software is typically used to download and share music, images, software, videos and documents.

P2P file-sharing software is available on the internet, and common applications are Morpheus, KaZaA, eDonkey and LimeWire. Some are free while others make a nominal charge to download the file-sharing software.

Some free versions of P2P software will include banners and pop-up advertising, spyware and third-party software. P2P software for which a charge is made will typically not include these, while offering other facilities such as voice chat rooms and Internet Relay Chat.

Benefits

In the same way as chat services, P2P networks can develop a sense of community among users, particularly in areas such as gaming for example.

The use of P2P networks is primarily a recreational activity; it is unlikely that it will have any applications in the school setting, although this may change in the future.

Risks

There are numerous concerns regarding the use of P2P networks:

Intellectual property

A key risk of P2P networks is that many of the files available for download have been made available illegally, and hence those downloading or swapping files are breaching intellectual property rights.

In the UK, the music industry is being seriously affected by this issue, and estimated that in March 2004, 7.4 million people in the



UK were swapping songs illegally online. In a bid to stop these activities, the British Phonographic Industry (BPI) is now looking to prosecute those involved in illegal file-sharing activities. Children and young people are not exempt from prosecution.

There are, however, an increasing number of authorised sites, such as Napster, where files can be downloaded for a small charge without breaching copyright.

Exposure to inappropriate content

There is a risk that when using P2P file-sharing services, young people may be exposed to inappropriate or illegal content. This could be in the form of song files with age-inappropriate or explicit lyrics, or image or video files that have incorrect or misleading titles or descriptions. It is unfortunate but true that some users of P2P networks deliberately set out to circulate porn or other offensive content by disguising it as a file with a perfectly innocent name, such as the latest family blockbuster, in a bid to attract young people.

Exposure to inappropriate contact

Many P2P applications are now making additional services available such as voice chat rooms and Internet Relay Chat. The same rules should be applied when using P2P chat services as for using chat rooms or any other communications device – keep personal information private, and if any conversations make you feel uncomfortable, don't respond and leave the conversation. It may be wise to change your username too.

Viruses and hacking

Users of P2P networks can lay themselves open to increased risks of virus infections and hacking attempts. When joining a P2P file-sharing service you are asked to specify which directory on your hard drive you wish to permit other P2P users access to, but it is very difficult to ensure that the rest of your PC is absolutely secure.

Avoiding the dangers

Given that it is unlikely, at present, that P2P networks will have any applications in the school setting, schools may wish to block the installation of file-sharing software on to school networks.

It is, however, likely that young people will access P2P networks in other settings. Schools should therefore take a role in educating pupils about the issues.

Use only authorised services

As already stated, downloading unauthorised copies of files is illegal, and may result in prosecution. Many services are now being launched which offer legal downloading of files for a small charge. However, this could have financial implications for young people.

Using filtering tools

Many P2P applications, such as KaZaA, will offer a level of filtering based on the descriptive data (metadata) attached to a file to exclude files that potentially contain offensive or adult content, or that contain any of a user-defined list of blocked words. However, such filters can only be effective if the creator of the file has taken the time and effort to attach suitable keywords; some creators undoubtedly attach misleading keywords as a way of distributing inappropriate content.

Some P2P software also allows blocking of certain file types such as images or video, or executable files with extensions such as .exe, .vbs or .scr which can potentially contain viruses.

It is also worth noting that filtering software for home use does not typically block access to file-sharing applications.

Security

Anyone using file-sharing software should ensure that all downloaded files are checked for viruses, and that appropriate firewall technology is in place.

Embedding safe use of P2P networks in the curriculum

See also Sections 6 and 7 of this booklet for a fuller discussion of how safe use of P2P networks can be embedded into the curriculum areas below.



ICT Key Stage 3 National Strategy	Year 7	Finding things out	Using data and information sources
	Year 8	Exchanging and sharing information	Communicating
	Year 9	Exchanging and sharing information	Communicating

Key Stage 3	ICT Citizenship PSHE	4d 3c 2f, 3j
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Key Stage 4	ICT Citizenship PSHE	4b 3c 1b, 3c
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Useful resources

Be Safe Online – 'File sharing'
<http://www.besafeonline.org/>



Screen shot reprinted with permission from Learning and Teaching Scotland

This 'File sharing' section on Learning and Teaching Scotland's Be Safe Online website gives an overview of some of the common problems encountered when using file-sharing software.

FKBKO – For Kids by Kids Online – 'Peer 2 peer'
<http://www.fkbko.co.uk/EN.php?lang=EN&&subject=6&&id=0&&level=0>



Screen shot reprinted with permission from FKBKO

The FKBKO 'Peer to peer' section helps young people find out:

- what P2P is
- about types of P2P applications
- how to protect themselves against attack by choosing good software
- how to configure their computers.

Topics are categorised by 'beginner' (What is P2P?), 'intermediate' (share but beware, types of software application, what is spyware?) and 'advanced' (protecting your computer).



Kidsmart
<http://www.kidsmart.org.uk/>



Screen shot reprinted with permission from Childnet International

Kidsmart is a practical internet safety website produced by the children's internet charity, Childnet International, for schools.

The website has a new presentation for secondary school pupils covering areas such as P2P networks, as well as mobile phones, chat and email. It can be freely downloaded, and is accompanied by a teachers' guide and script.

Websafe Crackerz – 'Nick-star'
<http://www.websafecrackerz.com/>

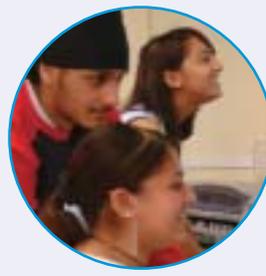


MSN® screen shot reprinted with permission from Microsoft Corporation

The Websafe Crackerz 'Nick-star' section presents a mock P2P file-sharing service.

Topics covered range from the common myths and misconceptions about file sharing, risks of viruses, legal consequences of illegal file sharing, and information on spyware and adware.

The site also provides some links to legitimate resources for file sharing.



6 Embedding internet safety issues into the curriculum at Key Stages 3 and 4

ICT and, specifically, web-based resources, are increasingly being used across the curriculum. It makes sense, therefore, that guidance on safe use of the internet should be given to pupils wherever and whenever such use occurs. This could be in the form of a reminder of the school's acceptable use policy before going online in a geography lesson to look at a live webcam of volcanic activity, or a reminder, in an English lesson, of the need to critically evaluate materials found on the web and observe copyright restrictions.

Schools are encouraged to look for other opportunities for teaching internet safety across the curriculum rather than as a discrete subject, possibly to cover issues that might not typically be encountered during in-school use of ICT. Although internet safety is not explicitly referred to within the National Curriculum at present, there are a number of appropriate areas within the programmes of study that offer opportunities to discuss internet safety issues, and these are highlighted within this section.

For the purposes of this booklet we have focused on the curriculum areas of ICT, citizenship and PSHE, and the relevant teaching points from the programmes of study of each are duplicated below.

The full programmes of study can be found online [<http://www.nc.uk.net/>].



Key Stage 3 ICT programme of study

General area of knowledge, skill or understanding	Specific teaching point from the programme of study	Relevance to internet safety issues
Finding things out	<p>1a: Pupils should be taught to be systematic in considering the information they need and to discuss how it will be used.</p> <p>1b: Pupils should be taught to obtain information well matched to purpose by selecting appropriate sources, using and refining search methods and questioning the plausibility and value of the information found.</p>	<p>This aspect gives opportunities for teaching pupils about copyright issues, particularly in relation to materials which they find on the internet and may wish to use to inform their own work.</p> <p>This aspect gives opportunities for teaching pupils how to search effectively on the web, and the importance of critically evaluating any materials they find.</p>
Exchanging and sharing information	<p>3c: Pupils should be taught how to use ICT, including email, to share and exchange information effectively.</p>	<p>Under this area pupils can be alerted to the safety issues of using email, chat rooms, instant messaging and any other 'direct contact' communications device, along with the importance of keeping personal information private.</p> <p>The notion of appropriate writing conventions for electronic communications, such as language, brevity and tone, could also be introduced here.</p>
Reviewing, modifying and evaluating work as it progresses	<p>4d: Pupils should be taught to be independent and discriminating when using ICT.</p>	<p>This aspect effectively underpins all ICT work with an awareness of internet safety issues.</p> <p>Pupils should be encouraged to take a common-sense approach to using the internet and related technologies, knowing the appropriate behaviours that they (and others) should adopt online, along with appropriate strategies to use if things go wrong.</p>



Key Stage 3 citizenship programme of study

General area of knowledge, skill or understanding	Specific teaching point from the programme of study	Relevance to internet safety issues
<p>Knowledge and understanding about becoming informed citizens</p>	<p>1a: Pupils should be taught about the legal and human rights and responsibilities underpinning society, basic aspects of the criminal justice system, and how both relate to young people.</p> <p>1h: Pupils should be taught about the significance of the media in society.</p>	<p>Pupils should be taught about their rights to privacy, and the responsibility to protect the privacy of others by not disclosing information when using the internet.</p> <p>The internet is becoming an increasingly important form of media in our society.</p> <p>As part of becoming 'informed citizens', pupils should be aware of the risks and dangers of this form of media, alongside the many benefits.</p>
<p>Developing skills of enquiry and communication</p>	<p>2a: Pupils should be taught to think about topical political, spiritual, moral, social and cultural issues, problems and events by analysing information and its sources, including ICT-based sources.</p>	<p>While looking at internet-based resources, pupils should be encouraged to consider their appropriateness. They should be aware that they might encounter inappropriate content on the internet which may contain extreme political or social views, and may be biased in opinion.</p> <p>Pupils should be taught to critically evaluate any material they find.</p>
<p>Developing skills of participation and responsible action</p>	<p>3c: Pupils should be taught to reflect on the process of participating.</p>	<p>This teaching point provides a good opportunity to discuss the issues relating to communicating using ICT.</p> <p>The safety issues of using email, chat rooms, instant messaging and text messaging can be discussed, alongside the problems of online bullying which are often associated with these forms of technology.</p>



Key Stage 3 PSHE programme of study (non-statutory)

General area of knowledge, skill or understanding	Specific teaching point from the programme of study	Relevance to internet safety issues
Developing a healthy, safer lifestyle	<p>2f: Pupils should be taught to recognise and manage risk and make safer choices about healthy lifestyles, different environments and travel.</p> <p>2g: Pupils should be taught to recognise when pressure from others threatens their personal safety and wellbeing, and to develop effective ways of resisting pressures, including knowing when and where to get help.</p>	<p>Pupils should be taught to minimise the risks to their personal safety when using ICT.</p> <p>Studies have identified that young people often engage in risky behaviours when using chat rooms, and this is a good place to discuss the issues. This will include areas such as keeping personal information private, protecting online identities and passwords, and never arranging to meet anyone in person that they have only met online.</p> <p>Building on the comments under 2f (above), this teaching point provides an opportunity to develop pupils' understanding of the risks associated with chat rooms and similar services, where their own personal safety or wellbeing might be threatened in some way.</p> <p>Pupils should be taught how to respond if they are contacted in any way which makes them uncomfortable, and where they can turn to for help and advice.</p> <p>They should also understand the impact of online bullying.</p>
Developing good relationships and respecting the differences between people	<p>3a: Pupils should be taught about the effects of all types of stereotyping, prejudice, bullying, racism and discrimination, and how to challenge them assertively.</p> <p>3j: Pupils should be taught to resist pressure to do wrong, to recognise when others need help and how to support them.</p> <p>3k: Pupils should be taught to communicate confidently with their peers and adults.</p>	<p>This is a good area to introduce issues relating to online bullying, such as by mobile phone or in chat rooms.</p> <p>Pupils should be made aware of the damaging impact that online bullying can have on its victims, along with information on where they can go for help and advice if they are suffering.</p> <p>Pupils should be aware of peer pressure in chat rooms, for example to bully others, or other forms of inappropriate behaviour using new technologies, and develop strategies for protecting themselves.</p> <p>This teaching point could also be used to discuss issues relating to copyright and intellectual property relating to materials available on the internet, possibly within the context of plagiarism or illegal P2P networks.</p> <p>Pupils should also be aware of the many organisations that exist to help make the internet a safe place for all.</p> <p>This is a good area to discuss internet safety issues relating to email, chat rooms and other 'direct contact' communications services.</p>



Key Stage 4 ICT programme of study

General area of knowledge, skill or understanding	Specific teaching point from the programme of study	Relevance to internet safety issues
Finding things out	<p>1b: Pupils should be taught to be discriminating in their use of information sources and ICT tools.</p>	<p>This aspect gives opportunities for teaching pupils how to search effectively on the web, and the importance of critically evaluating any materials they find.</p>
Reviewing, modifying and evaluating work as it progresses	<p>4b: Pupils should be taught to reflect critically on the impact of ICT on their own and others' lives, considering the social, economic, political, legal, ethical and moral issues (for example: changes to working practices; the economic impact of e-commerce; and the implications of personal information gathered, held and exchanged using ICT).</p> <p>4c: Pupils should be taught to use their initiative to find out about and exploit the potential of more advanced or new ICT tools and information sources (for example, new sites on the internet, or new or upgraded application software).</p>	<p>There are opportunities here for discussing a number of internet safety issues.</p> <p>Pupils should be aware of potential legal consequences of their activities on the internet.</p> <p>They should be aware of the relevant legislation such as copyright and intellectual property law in terms of plagiarism of coursework, or downloading music files from illegal P2P networks.</p> <p>The Computer Misuse Act (which prohibits unauthorised access to or modification of computer materials – such as through hacking) could also be discussed, along with data protection legislation which protects personal information relating to an individual.</p> <p>Young people should also be aware of the commercial implications of using the internet, and of related risks, including online fraud or 'phishing' scams (sending emails designed to fool recipients into divulging personal financial data).</p> <p>Technology is developing at such a rate that it is impossible to keep pace with all the potential issues in a publication such as this.</p> <p>There is an opportunity here, however, for alerting pupils to the need to critically evaluate any new technology they encounter in terms of potential risks to their personal safety.</p> <p>Pupils should be encouraged to adopt safe and responsible behaviours regardless of the technology they are using.</p>
Breadth of study	<p>6: Pupils should be taught to be independent, responsible, effective and reflective in their selection, development and use of information sources and ICT tools to support their work, including their application in other areas of their study and in other contexts (for example, work experience or community activity).</p>	<p>As with 1b (above), this aspect gives opportunities for teaching pupils how to search effectively on the web, and the importance of critically evaluating any materials they find.</p> <p>Pupils should have confidence in their own abilities to use the internet and related technologies safely and responsibly, but also know that help and advice is available if needed.</p>



Key Stage 4 citizenship programme of study

General area of knowledge, skill or understanding	Specific teaching point from the programme of study	Relevance to internet safety issues
<p>Knowledge and understanding about becoming informed citizens</p>	<p>1a: Pupils should be taught about the legal and human rights and responsibilities underpinning society and how they relate to citizens, including the role and operation of the criminal and civil justice systems.</p> <p>1g: Pupils should be taught about the importance of a free press and the media's role in society, including the internet, in providing information and affecting opinion.</p>	<p>Pupils should be taught about their rights to privacy, and the responsibility to protect the privacy of others, by not disclosing information when using the internet.</p> <p>While pupils should be aware of the role of the internet in providing a free voice to anyone wishing to publish materials, they should also be aware of the reliability and appropriateness of such materials.</p> <p>Pupils should be aware of bias and context in the materials they find, and should learn to critically evaluate them.</p>
<p>Developing skills of enquiry and communication</p>	<p>2a: Pupils should be taught to research a topical political, spiritual, moral, social or cultural issue, problem or event by analysing information from different sources, including ICT-based sources, showing an awareness of the use and abuse of statistics.</p>	<p>As with the Key Stage 3 programme of study, when looking at internet-based resources, pupils should be encouraged to consider their appropriateness.</p> <p>They should be aware that they might encounter inappropriate content on the internet which may contain extreme political or social views, and may be biased in opinion.</p> <p>Again, pupils should be taught to critically evaluate any material they find.</p>
<p>Developing skills of participation and responsible action</p>	<p>3c: Pupils should be taught to reflect on the process of participating.</p>	<p>This teaching point provides a good opportunity to discuss the issues relating to communicating using ICT. The safety issues of using email, chat rooms, instant messaging and text messaging can be discussed, alongside the problems of online bullying which are often associated with these forms of technology.</p> <p>Pupils should also be aware of the immediacy and permanency of any communications they make using ICT, and should learn the importance of protecting their personal information and that of others.</p>



Key Stage 4 PSHE programme of study (non-statutory)

General area of knowledge, skill or understanding	Specific teaching point from the programme of study	Relevance to internet safety issues
<p>Developing confidence and responsibility and making the most of their abilities</p>	<p>1b: Pupils should be taught to have a sense of their own identity and present themselves confidently in a range of situations.</p> <p>1d: Pupils should be taught to recognise influences, pressures and sources of help and respond to them appropriately.</p>	<p>This is a good place to discuss the rights of pupils to protect their own personal information. Pupils should be taught to look for privacy statements and opt-out clauses when registering for services online, and be encouraged to use these.</p> <p>Pupils should be aware of the impact of online bullying in its numerous forms, and be aware of sources of help and advice. They should recognise that peer pressure can also exist online, for example in chat rooms.</p> <p>Pupils should also be aware of the many organisations that exist to help make the internet a safe place for all.</p>
<p>Developing a healthy, safer lifestyle</p>	<p>2b: Pupils should be taught to use assertiveness skills to resist unhelpful pressure.</p>	<p>As 1d (above), pupils should be encouraged to develop strategies for dealing with peer pressure or bullying online, and should be confident in their ability to seek additional help if needed.</p>
<p>Developing good relationships and respecting the differences between people</p>	<p>3b: Pupils should be taught to be aware of exploitation in relationships.</p> <p>3c: Pupils should be taught to challenge offending behaviour, prejudice, bullying, racism and discrimination assertively, and take the initiative in giving and receiving support.</p>	<p>Pupils should understand the need to be cautious when developing relationships online, and should never be coerced into activities which make them feel uncomfortable. It may be particularly relevant to raise safety issues relating to chat rooms and grooming here.</p> <p>Pupils should be aware of the existence of offensive material and views on the internet, and should know the appropriate behaviours to adopt if they, or others, encounter it.</p> <p>They should also develop an awareness of the many organisations which exist to minimise the existence of offending and illegal content on the internet.</p>

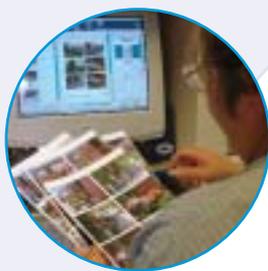




7 Embedding internet safety issues into the ICT Key Stage 3 National Strategy

In addition to embedding internet safety into the curriculum, there are a number of points within the ICT Key Stage 3 National Strategy where it is also appropriate to teach internet safety issues. These are briefly highlighted below.

The full strategy can be found online [<http://www.standards.dfes.gov.uk/keystage3/>].



ICT Key Stage 3 National Strategy – Year 7

Teaching objective and area	Specific teaching point	Relevance to internet safety issues
Finding things out		
Using data and information sources	Identify the purpose of an information source (eg to present facts or opinion, to advertise, publicise or entertain) and whether it is likely to be biased. Understand how someone using an information source could be misled by missing or inaccurate information.	These teaching points all relate to effective searching on the internet, and critical evaluation of materials found. Pupils should be aware of tone, bias and context in the materials they find online, and should be aware that some web publishers deliberately aim to mislead users.
Searching and selecting	Search a variety of sources for information relevant to task (eg using indexes, search techniques, navigational structures and engines).	
Exchanging and sharing information		
Fitness for purpose	Recognise common forms and conventions used in communications and how these address audience needs (eg columns of text in newspapers, graphics and enlarged print in posters, hyperlinks on websites). Apply understanding of common forms and conventions to own ICT work. Use given criteria to evaluate the effectiveness of own and others' publications and presentations.	Under this area pupils can be alerted to the safety issues of using email, chat rooms, instant messaging and any other direct-contact communications device, along with the importance of keeping personal information private. The notion of appropriate writing conventions for electronic communications could also be introduced here. Pupils should be taught to critically evaluate materials found online.
Communicating	Use email securely and efficiently for short messages and supporting materials. Know how to protect personal details and why this is important.	As with 'fitness for purpose' (above), the notion of appropriate writing conventions for electronic communications could be reinforced here. Pupils should also be aware of the immediacy and permanency of any communications they make using ICT, and should learn the importance of protecting their personal information and that of others.



ICT Key Stage 3 National Strategy – Year 8

Teaching objective and area	Specific teaching point	Relevance to internet safety issues
Finding things out		
Using data and information sources	<p>Understand how the content and style of an information source affects its suitability for particular purposes, by considering:</p> <ul style="list-style-type: none"> • its mix of fact, opinion and material designed to advertise, publicise or entertain • the viewpoint it offers • the clarity, accessibility and plausibility of the material. 	<p>Pupils should be aware of tone, bias and context in the materials they find online, and should be aware that some web publishers deliberately aim to mislead users.</p> <p>They should learn to critically evaluate any information they find, and should consider any copyright restrictions on its further use.</p>
Searching and selecting	Extend and refine search methods to be more efficient (eg using synonyms and AND, OR, NOT).	Pupils should be taught to search effectively using online search tools within the context of internet safety issues such as 'safe' search engines and filtering tools.
Organising and investigating	Understand potential misuse of personal data.	Pupils should learn the importance of protecting their personal information and that of others, and be aware of issues such as identity theft and online fraud.
Exchanging and sharing information		
Fitness for purpose	Devise criteria to evaluate the effectiveness of own and others' publications and presentations, and use the criteria to make refinements.	Pupils should be taught to critically evaluate materials found online.
Communicating	Understand some of the technical issues involved in efficient electronic communications.	Pupils should be aware of viruses, and measures they can take to prevent their machines from becoming infected.



ICT Key Stage 3 National Strategy – Year 9

Teaching objective and area	Specific teaching point	Relevance to internet safety issues
Finding things out		
Using data and information sources	<p>Select information sources and data systematically for an identified purpose by:</p> <ul style="list-style-type: none"> judging the reliability of the information sources identifying possible bias due to sampling methods collecting valid, accurate data efficiently recognising potential misuse of collected data. 	<p>Pupils should be aware of tone, bias and context in the materials they find online, and should be aware that some web publishers deliberately aim to mislead users.</p> <p>They should learn to critically evaluate any information they find, and should consider any copyright restrictions on its further use.</p>
Exchanging and sharing information		
Communicating	<p>Understand the advantages, dangers and moral issues in using ICT to manipulate and present information to large unknown audiences (eg issues of ownership, quality control, exclusions, and impact on particular communities).</p>	<p>This is a good place to consider many of the legal issues of using the internet such as copyright and intellectual property legislation, the Computer Misuse Act (relating to hacking and unauthorised access to computing facilities, both hardware and software), and data protection issues. There is also the issue of accuracy and reliability of content on the web.</p> <p>The more risky aspects of communicating over the internet, such as grooming within chat rooms, should also be considered.</p>



8 Opportunities for sharing good practice

Internet safety need not be an activity that schools, or indeed individual teachers, face in isolation, but instead they should look for opportunities to share good practice and learn from the experiences of others. This section suggests a few ideas for doing this.

Local events and activities

It may be worth checking to see what is going on in your local area.

Local education authorities may have, or be developing, internet safety resources, or may provide guidance on good practice based on local circumstances, while local child protection teams may also be able to offer advice in this area.

Many local libraries provide guidance on using the internet safely, and may run internet safety events with which the school could be involved.

Likewise many regional police forces also run internet safety programmes, and may be able to provide specialist training and advice in schools.

Home-school links

This booklet has already mentioned the key role that parents can play through promoting internet safety at home. Schools should consider running parents' workshops to share good practice and achieve consistency between safety guidelines in both the home and the school.

Childnet International produces a range of materials to help schools share information on internet safety issues as part of their schools awareness programme, Kidsmart. Resources include leaflets and books and a 54-slide presentation which can usefully be shown at parents' evenings. See the Childnet International parents' support website [<http://www.childnet-int.org/safety/parents.aspx>].



ICT Advice site

<http://www.ictadvice.org.uk/>

The Becta ICT Advice site offers a number of online communities and forums. Each online community focuses on a different aspect of the use of ICT in education, such as a particular technology or classroom practice, or planning and management issues such as internet safety. The communities are also a good place to share advice, get feedback on ideas and talk to colleagues with experience of similar roles and situations. Joining an online community can also help you stay informed (and for you to inform others) about new events, lesson ideas or funding sources.

Participation takes place via email groups which are free to join. All you need is an email address which you can access and check for messages regularly.

To join a group, just visit the ICT Advice site and click on the 'Talk' link to see a list of current categories. Once you have found a community you would like to join, click the 'Register' link to start making contributions. You can subscribe to as many groups as you want. Many forums also provide searchable archives of discussions.

Teacher Resource Exchange

<http://tre.ngfl.gov.uk/>

The Teacher Resource Exchange (TRE) is a moderated database of resources and activities designed to help teachers develop and share ideas for good practice. All resources on the TRE are checked by subject specialists to ensure they are of the highest possible quality. It is not necessary to register to download resources from the TRE; however you must be registered to submit resources.

Why not submit ideas you have for teaching internet safety across the curriculum to the TRE?

Superhighway Safety website

<http://safety.ngfl.gov.uk/schools/>

The Superhighway Safety website aims to highlight the safety issues relating to new technologies, and provide practical information and advice for schools on how to use these technologies safely.

The site is regularly updated with information on emerging technologies and issues, and there are a number of examples of good practice in areas such as email, chat rooms and acceptable use policies.

Case studies of effective practice in promoting the safe use of ICT in education are welcomed. Please contact: Internetprof@becta.org.uk.

Any updates or additions to information contained within this booklet will also be posted on the Superhighway Safety website.



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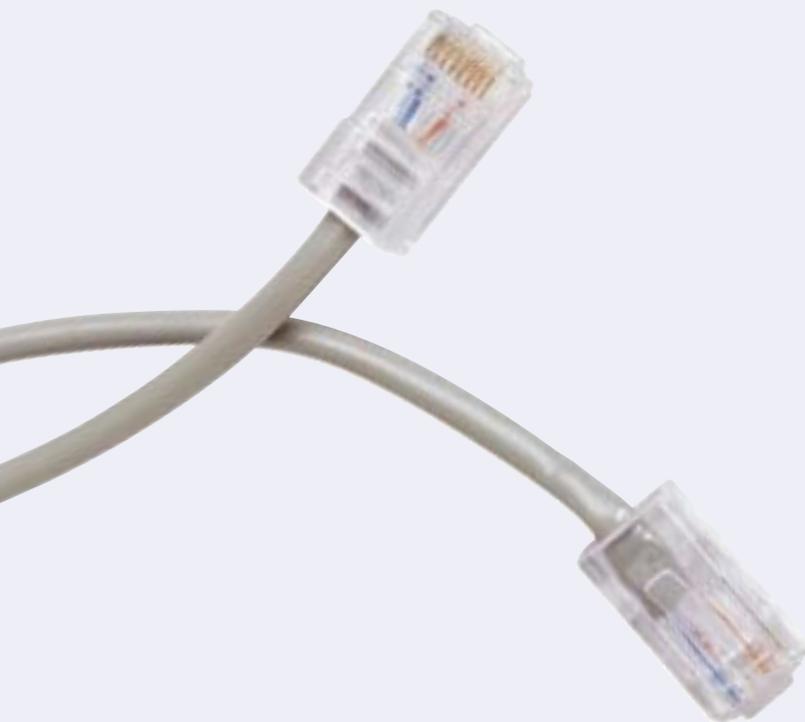
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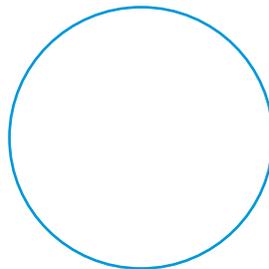
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