

SUBJECT	YEAR	TERM
COMPUTER SCIENCE	7	2
TOPIC		
E-SAFETY		
<p><b>PRIOR LEARNING (TOPIC)</b> Whilst it is assumed that primary schools will have had some discussion on e-safety, no previous knowledge is actually required.</p>		
<p>This unit covers some of the legal safeguards regarding computer use, including overviews of the Computer Misuse Act, Data Protection Act and Copyright Law and their implications for computer use. Phishing scams and other email frauds, hacking, "data harvesting" and identity theft are discussed together with ways of protecting online identity and privacy. Health and Safety Law and environmental issues such as the safe disposal of old computers are also discussed.</p>		
<p><b>FUTURE LEARNING (TOPIC):</b> Computer Crime and Cyber Security</p>		
IMPLEMENTATION		
KNOWLEDGE	SKILLS	
<p>As a result of this topic, pupils will gain the following knowledge:</p> <ul style="list-style-type: none"> <li>Name the major Acts concerning computer use</li> <li>Describe briefly some of the dangers of putting personal data on social networking sites</li> <li>Describe briefly ways of protecting online identity and how to report concerns</li> <li>Identify some of the signs of fraudulent emails and respond appropriately</li> <li>Adhere to Copyright Law when using written text, downloading music etc.</li> <li>List some of the Health and Safety hazards associated with computer use</li> <li>Describe how to safely dispose of an old computer</li> <li>Briefly describe the content of the major Acts concerning computer use</li> <li>Find out what data is held about them by companies such as Google</li> <li>Recognise fraudulent emails and protect themselves effectively from unwittingly giving personal information (e.g. account numbers and passwords) or otherwise being defrauded</li> <li>Protect their online identity using Privacy settings and by not uploading personal details</li> <li>Use computers sensibly and safely with regard to physical hazards such as backache, eyestrain, RSI etc.</li> <li>Respond effectively and appropriately to emails</li> <li>Describe the effects on individuals and companies of illegally downloading copyright material, e.g. music, images and movies</li> </ul>	<p><b>Learning Skills:</b> Synthesis: Pupils will bring ideas together and create solutions to staying safe online Problem solving: when deciding how to solve a problem and why?</p> <p><b>Life Skills:</b> Collaboration: on complex moral and ethical issues in computing Personal safety: understanding the dangers and ensuring they can stay as safe as possible online</p> <p><b>IT Skills:</b> Software: Understanding and using Internet browsers safely and securely</p> <p><b>Literacy Skills:</b> Digital literacy: Examining emails to find literacy errors, indicating phishing attacks. Vocabulary: Learning new vocab and learning how it links to real world understanding (Trojan) and the use of language terms such as Portmanteau (Malware – Malicious Software).</p>	

## IMPACT

Pupils will be set tasks via the VLE for both classwork and homework. Work will be marked in alignment with the department's marking scheme for the unit, using a 9-1 grading. Pupils will also have access to the marking rubric in order to understand how to improve their grade. A final topic assessment will be a multiple choice quiz set via the VLE.

New Computing at Schools (CAS) Attainment Targets (partially covered in this Unit):

Understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns

## HOW CAN PARENTS HELP AT HOME?

Showing an interest in the topic is always the biggest help, as well as ensuring they are completing their homework to the highest effort standard. If lessons are missed, the VLE can be used to catch up with content – parents can access this too. Encourage pupils to use the links for further reading. Everything they are learning is relevant to the home and families too, pupils can help educate parents on the new dangers associated with computers and technology and discuss how to ensure they are safe.

## HELPFUL READING/FURTHER DISCUSSION

### READING

CGP KS3 Computer Science book

Hodder KS3 Compute-IT book

Technology and Innovation magazine

### Websites:

- To keep up with the latest tech news: <https://www.bbc.co.uk/news/technology>
- BBC Bitesize on Online Safety: <https://www.bbc.co.uk/bitesize/guides/z9p9kqt/revision/1>
- Common scams: <http://www.banksafeonline.org.uk/common-scams>
- Visit [www.pipl.com](http://www.pipl.com), Pipl will then search for anything on the web in connection with them.
- Google Dashboard ([www.google.com/settings/dashboard](http://www.google.com/settings/dashboard))
- Plagiarism and its similarities to and differences from copyright infringement: <http://www.plagiarismtoday.com/2013/10/07/difference-copyright-infringement-plagiarism/>
- Napster story <http://abcnews.go.com/Technology/story?id=119627&page=1>
- Pirate Bay story <http://www.bbc.co.uk/news/technology-22888851>
- iPhone vs Samsung <http://www.theweek.co.uk/business/apple-vs-samsung/57621/apple-copyright-case-could-cost-samsung-2bn>
- E-Waste of a BBC 'Click' broadcast. <https://www.youtube.com/watch?v=rX79eZG4GIs>

## VOCABULARY

Phishing, hacking, malware, virus, Trojan, logic bomb, geo-tagging, data harvesting, cybercrime, RSI, copyright, e-waste.

### CAREERS

- Applications developer
- Cyber security analyst
- Data scientist
- Forensic computer analyst
- Information systems manager
- IT consultant
- Network engineer
- Software engineer
- Systems analyst
- Web designer

### EXTRA SKILLS

- Communication
- Teamwork
- Leadership
- Problem-solving
- Time Management
- Organisation
- Report Writing
- Software Skills

### PROGRESSION

- Cyber Security online competitions
- GCSE Computer Science
- A-level Computer Science
- University/Apprenticeship
- Work Experience