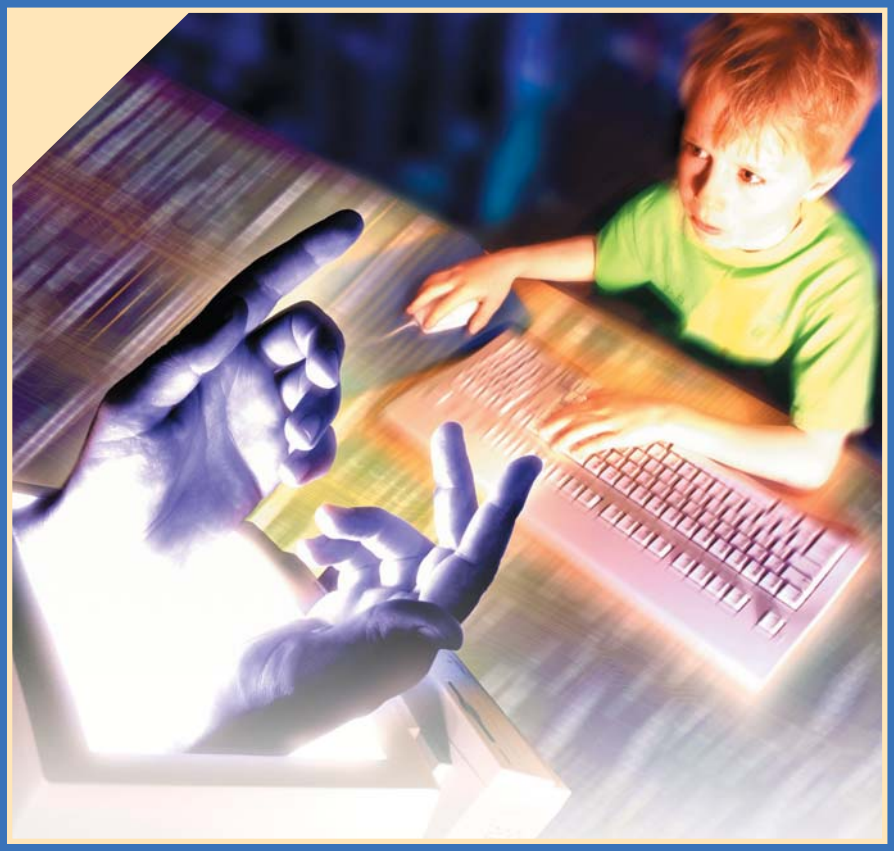
IDEAS FOR INTEGRATING
INTERNET SAFETY
INTO THE CURRICULUM



VIRGINIA DEPARTMENT OF EDUCATION
DIVISION OF
TECHNOLOGY & HUMAN RESOURCES
OFFICE OF EDUCATIONAL TECHNOLOGY

JUNE 2007

Developed in Response to Chapter 52 – An Act to Amend and Reenact § 22.1-70.2 of the *Code of Virginia*, Relating to Internet Safety Instruction in Schools (HB58 – Approved March 7, 2006)

Disclaimer

This document provides links to Web sites created and maintained by other public and/or private organizations. The Virginia Department of Education provides links to these sites for information purposes only; the presence of a link is not an endorsement of the site. Although every reasonable effort is made to present current and accurate information. Internet content appears, disappears, and changes over time. Please let us know about existing external links that might be inappropriate.

INTERNET SAFETY

CONTENTS

General Safety for All Subjects 1

English 2
- Elementary 2
- Middle 3
- High 4

History/Social Science 6
- Elementary 6
- Middle 7
- High 8

Science 9
- Elementary 9
- Middle 10
- High 10

Mathematics 11
- Elementary 11
- Middle 11
- High 12

INTERNET SAFETY

IDEAS FOR INTEGRATING INTERNET SAFETY INTO THE CURRICULUM

The Internet allows students to learn from a wide variety of resources and communicate with people all over the world. Students should develop skills to recognize valid information, misinformation, biases, or propaganda. Students should know how to protect their personal information when interacting with others and about the possible consequences of online activities such as social networking, e-mail, and instant messaging. This guide provides ideas for addressing Internet safety in the context of Virginia's Standards of Learning. Additional information about the Standards of Learning can be found at http://www.doe.virginia.gov/VDOE/Superintendent/Sols/home.shtml.

GENERAL SAFETY FOR ALL SUBJECTS

Whenever students conduct research or communicate on the Internet, teachers should remind them of the following: (1) rules, as outlined by the school division's acceptable use policy (AUP); (2) techniques for evaluating information from Web pages; (3) potential dangers of using Web pages or e-mail for communications; and (4) proper precautions to take as well as appropriate steps to take if they encounter a problem. Students also need to be aware of online pitfalls, such as the propaganda or persuasive tactics used by content providers and advertisers, lack of visual signals between people, and misuse of words and images by cyberbullies and/or criminals.

Constant repetition of these cybersafety elements will help students internalize these messages.

INTERNET SAFETY

ENGLISH

In general, Internet communications are more like oral, rather than written, communications; they involve immediacy, dialogue, and varieties of audiences. In exploring oral language issues with students, teachers may also use Internet (and other electronic) communications as examples and methods to learn certain skills. Students increasingly practice nonfiction reading and writing skills as they gain more experience in English. These same skills will work with the Internet as a source of information or as a publishing venue.

Listed below are Virginia Standards of Learning which lend themselves to integrating Internet safety with a brief explanation of how the two can be connected.

Elementary

2.3, 3.1, 4.1, 5.1, 5.2, 5.3
See the above note for English.

K.12, 3.7
If students are using online interactives or other resources for practicing skills, address the general safety issues (page 1).

Surfing the Web for ABCs
http://www.siec.k12.in.us/~west/proj/abc/abcless.htm
This idea uses safe-searching techniques with young children as part of a lesson on beginning sounds.

1.12, 2.11, 3.10, 4.7, 5.8
If students are using online tools for written communications, address the general safety issues (page 1).

2.3, 5.8
When helping students learn how to use oral language or how to write to inform, persuade, and entertain, point out how these techniques are often used on Web sites.

3.6, 4.5
Students can apply nonfiction reading skills to information on Web sites, especially when identifying the author's purpose or distinguishing between fact and opinion.

3.7, 4.3
When students use online tools as reference resources, address the general safety issues (page 1).

4.6, 5.6, 5.7
When students research on the Internet, they need to be reminded about how to evaluate Web sites for authenticity and factuality.

A SMART Exercise KS2
http://www.kidsmart.org.uk/downloads/lessonplans/lessonplan_comm.pdf
This lesson idea can be incorporated when teaching about language structure or the use of codes in history.

Middle

6.1, 7.1, 7.2, 7.3
See the note for English (page 2).

6.2, 7.6, 8.7
Students learning to distinguish between fact and opinion in their own communications can see the connection to information found on Web sites.

6.2
As students learn to express opinions with convincing arguments, emotions likely will become heated. Students should be apprised of the dangers of cyberbullying.

No More Bullying: Understanding the Problem, Building Bully-free Environments
http://www.readwritethink.org/lessons/lesson_view.asp?id=935
This lesson incorporates the teaching of bullying issues with literature. It easily can be extended to include cyberbullying.

6.5, 7.6, 7.7, 8.6
When students use online tools as reference resources, address the general safety issues (page 1) appropriate for this age group.

Active Reading: Learning to Think Like Fact Checkers
http://www.nytimes.com/learning/teachers/lessons/20051205monday.html
In writing factual articles for an online encyclopedia, students learn about fact and opinion as found on the Internet.

7.3, 8.3
Students exploring persuasive messages can see how these same techniques are used in Web content and advertisements.

Identifying and Understanding the Fallacies Used in Advertising
http://www.readwritethink.org/lessons/lesson_view.asp?id=785
This lesson develops student awareness of the logical fallacies used in advertising.

7.4, 7.6, 8.3, 8.4
If students are using online resources for practicing skills, address the general safety issues (page 1).

7.6, 8.3
When exploring the difference between fact and opinion, demonstrate that Web sites do not always contain factual information and that certain techniques can persuade others of a point of view.

8.6
Students learning to analyze details for relevance and accuracy also can use these skills with Internet sites.

Inquiry on the Internet: Evaluating Web Pages for a Class Collection
http://www.readwritethink.org/lessons/lesson_view.asp?id=328
This lesson provides techniques for teachers to use when teaching students how to evaluate Web sites.

7.8, 8.7
If students are using online tools for written communications, address the general safety issues (page 1).

Naming in the Digital World: Creating a Safe Persona on the Internet
http://www.readwritethink.org/lessons/lesson_view.asp?id=843
This lesson is written for high school students but could easily be adapted to upper middle school students. It also is very good for ESL students.

High

10.1, 10.2, 11.1, 11.2
See the note for English (page 2).

9.3
Students exploring literary styles can see how these same styles are used in Web content and advertisements.

9.4, 9.9, 10.11, 11.4, 11.10, 12.7, 12.8
When students use online tools as reference resources, address the general safety issues (page 1) appropriate for this age group.

Defining Literacy in a Digital World
http://www.readwritethink.org/lessons/lesson_view.asp?id=915
This lesson focuses on the various forms of literacy required in today's world. A teacher easily can incorporate safety issues into this lesson plan.

9.4, 10.9, 12.8
Students can apply nonfiction reading skills to information on Web sites, especially when identifying the author's position and purpose.

12.1
As students learn to express opinions with convincing arguments, emotions likely will become heated. Students should be apprised of the dangers of cyberbullying. Note: Cybersafety may be used as a topic for presentations.

Copyright Infringement or Not? The Debate over Downloading Music
http://www.readwritethink.org/lessons/lesson_view.asp?id=855
This lesson addresses music downloading and legal issues as topics for a persuasive debate activity.

11.9
If students are using online resources for practicing skills, address the general safety issues (page 1).

9.6, 10.7, 10.11, 11.7, 11.9, 12.7
If students are using online tools for written communications, address the general safety issues (page 1).

Naming in the Digital World: Creating a Safe Persona on the Internet
http://www.readwritethink.org/lessons/lesson_view.asp?id=843
This lesson teaches students to create safe user names while learning about word connotations.

Sound Off!: Exploring How Public Interaction Changes the News Experience
http://www.nytimes.com/learning/teachers/lessons/20050714thursday.html
This lesson focuses on student communication with news outlets and blogs. Safety issues can be incorporated easily. Teachers may opt to use a blog simulation rather than a real blog.

High

9.6, 10.7, 11.7, 12.7
When writing, students can use Internet safety as a topic.

Paying Attention to Technology: Exploring a Fictional Technology
http://www.readwritethink.org/lessons/lesson_view.asp?id=323
Students use fiction to explore their assumptions about technology.

Paying Attention to Technology: Writing Technology Autobiographies
http://www.readwritethink.org/lessons/lesson_view.asp?id=325
Students focus on their personal uses of technology and how these affect their lives.

9.3, 9.4, 11.2, 12.7
When exploring the differences between fact and opinion, students should understand that Web sites do not always contain factual information and that certain techniques can be used to persuade others.

11.1, 11.7, 12.1
Students learning to write persuasive messages can see how these same techniques are used in Web content and advertisements.

Watching the Watchers: Analyzing Explicit and Subtle Advertising in a Variety of Media
http://www.nytimes.com/learning/teachers/lessons/20060727thursday.html
This lesson focuses generally on advertising techniques and can easily incorporate Internet-based advertising.

9.4, 9.9, 10.11, 11.4, 11.10, 12.7, 12.8
When students research on the Internet, remind them how to evaluate Web sites for authenticity and factuality.

9.4, 11.2
Students learning to analyze details for relevance and accuracy can use these same skills with Internet sites.

Identifying and Understanding the Fallacies Used in Advertising
http://www.readwritethink.org/lessons/lesson_view.asp?id=785
In this lesson, students learn about techniques used in advertising, including electronic ads.

9.4, 9.9, 10.4, 10.11, 11.4, 11.10, 12.4. 12.7, 12.8
Students exploring issues with research and for writing projects can use technology and ethics as a topic.

Paying Attention to Technology: Reviewing a Technology
http://www.readwritethink.org/lessons/lesson_view.asp?id=838
Students use their book review techniques to review a technology.

Blogtopia: Blogging About Your Own Utopia
http://www.readwritethink.org/lessons/lesson_view.asp?id=942
Students use the technology of a blog to write about how their own visions of a utopia would work. An alternative activity is included for divisions that do not have access to blog technology.

INTERNET SAFETY

HISTORY/ SOCIAL SCIENCE

Cybersafety can be integrated into the teaching of history and social science primarily in two ways: (1) in conjunction with the Internet as a research tool (see page 1 for General Safety for All Subjects) and (2) as a topic of study, research, and debate for many civics SOL.

Listed below are Virginia Standards of Learning which lend themselves to integrating Internet safety with a brief explanation of how the two can be connected.

HISTORY/SOCIAL SCIENCE

Elementary

K.8, 1.10, 2.10, 3.10
When studying rules and responsibilities, the division's Internet safety rules may be used as an example.

Safety Tips with **Officer Buckle and Gloria**
http://www.readwritethink.org/lessons/lesson_view.asp?id=1019
This lesson inspires students to think and write about safety rules. Internet safety easily can be incorporated into this lesson.

Creating Classroom Rules
http://www.sciencenetlinks.com/lessons.cfm?DocID=293
This lesson focuses on the process of creating rules and how these rules help a group function. Internet safety rules easily can be incorporated into this lesson.

Good Manners Everywhere
http://www.cybersmartcurriculum.org/lesson_plans/23_03.asp
This lesson specifically addresses the rules of online communications—in this case, e-mail netiquette.

3.10
When studying the laws of the country, use examples of online crimes.

3.12
When exploring individual rights and freedoms in the context of diversity, discuss how the Internet can be used both to support and disparage diversity.

VS.1, USI.1
If students are using online tools for written communications, address the general safety issues (page 1).

Speak Out!
http://www.cybersmartcurriculum.org/lesson_plans/45_07a.asp
Students use e-mail to participate in their government and learn safety rules appropriate to Internet communications.

Middle

USI.1, USII.1, CE.1, WH.1
If students are using online resources for practicing skills or conducting research, address the general safety issues (page 1).

Search Me (Not): Developing Profiles of Literary and Historical Figures by Imagining Their Web Searches
http://www.nytimes.com/learning/teachers/lessons/20060810thursday.html
This lesson focuses on research skills and illustrates how predators easily can piece together information about students.

USII.1
If students are using online tools for written communications, address the general safety issues (page 1).

USII.1, CE.1
As students learn to express opinions with convincing arguments, emotions likely will become heated. Students should be apprised of the dangers of cyberbullying.

CE.7
While studying the impact of media on public opinion and public policy, use examples from the Web.

CE.7
Students doing research must learn to recognize techniques used to persuade others of a certain point of view.

USII.1, CE.1
Use the Web to underscore the concepts of interpreting ideas from different perspectives and separating fact from opinion.

USII.8, CE.3, CE.8, CE.10, CE.11, CE.12
Students exploring the impact of new technologies on our culture should examine safety issues related to the Internet and other electronic communication devices.

CE.1
Students using charts and spreadsheets to explore information could examine Internet cybersafety data.

High

WHII.1, VUS.1
If students are using online resources for practicing skills and conducting research, address the general safety issues (page 1).

VUS.1
If students are using online tools for written communications, address the general safety issues (page 1).

WHII.15, WG.7, VUS.1, VUS.14, GOVT.1, GOVT.18
As students learn to express opinions with convincing arguments, emotions likely will become heated. Students should be apprised of the dangers of cyberbullying.

Protecting Our Space: Developing Public Service Announcements to Offer Information about Online Safety Concerns for Teens
http://www.nytimes.com/learning/teachers/lessons/20060622thursday.html
This lesson asks students to probe the issues involved with social networking sites, the government's role in protecting children, and their own role as citizens.

WHII.1, WG.7, VUS.1, GOVT.1, GOVT.6
Students doing research must explore the difference between fact and opinion and recognize techniques used to persuade others of a certain point of view.

Argument, Persuasion, or Propaganda?: Analyzing World War II Posters
http://www.readwritethink.org/lessons/lesson_view.asp?id=829
Students explore the nature of propaganda. Teachers can make a connection to information found on Web sites or in advertisements.

WHII.15, WG.9, WG.12, VUS.14, GOVT.9, GOVT.11
Students exploring the impact of new technologies on our culture should examine safety issues related to the Internet and other electronic communication devices.

Online and Off the Record: Exploring Internet Privacy Protections for Children
http://www.nytimes.com/learning/teachers/lessons/20030515thursday.html
This lesson focuses on the government's role in protecting children, balanced with free-speech rights.

R U Talkin 2 Me? Analyzing the Effects of Contemporary Communications Technologies
http://www.nytimes.com/learning/teachers/lessons/20061106monday.html
This lesson explores the various communication technologies available today and their impact on everyday life.

INTERNET SAFETY

SCIENCE

Cybersafety can be addressed when students research online resources or practice other skills through interactive sites (see page 1 for General Safety for All Subjects). Science teachers also may address underlying principles of cybersafety by reminding students that the senses are limited when communicating via the Internet or other electronic devices and that the use of reasoning and logic can extend to evaluating online situations.

Listed below are Virginia Standards of Learning which lend themselves to integrating Internet safety with a brief explanation of how the two can be connected.

Elementary

K.2, 1.1, 3.1, 4.1
Remind students that the senses cannot be used in many online communications.

Five Senses Lesson
http://www.eduref.org/Virtual/Lessons/Health/Body_Systems_and_Senses/BSS0005.html
Use a blindfold to explain the five senses and point out that many senses are absent when using modern communication devices.

Great Communications Inventions
http://www.cybersmartcurriculum.org/lesson_plans/45_21.asp
This lesson provides students the opportunity to explore modern communications technologies, including the advantages and disadvantages. Internet safety is a natural component to explore.

2.1, 3.1, 4.1
Remind students that personal observations and opinions may be communicated on the Internet as if they are fact.

Bias Sampling (Scientific)
http://www.sciencenetlinks.com/lessons.cfm?BenchmarkID=9&DocID=254
This lesson focuses on techniques that can bias a seemingly scientific poll or data collection. These same techniques can be used on the Web. Students need to be aware that some Web sites may provide misleading information.

3.1, 4.1
Students using graphs and spreadsheets to explore information could examine Internet cybersafety data.

Middle

6.1, LS.1, PS.1
If students are using online tools for written communications, address the general safety issues (page 1) appropriate for this age group.

Don't be Fooled by a Photograph
http://www.nationalgeographic.com/xpeditions/lessons/03/g68/hoaxphoto.html
This lesson, based on a doctored photograph of a shark, can help students understand that not all they see online is true.

6.1
Students learning how to think logically can evaluate information on the Internet for accuracy and logical validity.

Forensic Problem Solving and Einstein: The Vanishing Videos Mystery
http://www.wiredsafety.org/wiredlearning/Einstein/index.html
This lesson in logical thinking helps students understand how online predators gather bits of information to target victims.

6.9, PS.1
Students doing research must explore the difference between fact and opinion and recognize techniques used to persuade others of a certain point of view.

SCIENCE

High

ES.2, ES.11, ES.12, ES.14, BIO.1, BIO.8, PH.3, PH.4
Remind students that personal observations and opinions can be communicated on the Internet as if they are fact.

Pseudoscience Activity: Study in the Scientific Method
http://www.scienceteacher.org/k12resources/lessons/lesson18.htm
In this lesson, students explore a pseudoscience topic (e.g., Bermuda Triangle, palm reading, Bigfoot) through Internet sites. They apply the scientific method while exploring the topic.

ES.1, BIO.1, CH.1, PH.1
Teachers can help students understand that data collected and presented on the Internet may be flawed due to many variables, including equipment malfunction, human bias, or presentation mechanisms.

ES.1, BIO.1, CH.1, PH.1
If students are using online tools for written communications, address the general safety issues (page 1) appropriate for this age group.

ES.1, BIO.1
As students learn to express opinions with convincing arguments, emotions likely will become heated. Students should be apprised of the dangers of cyberbullying.

MATHEMATICS

Mathematics can facilitate the study of cybersafety by addressing the dangers of using interactive sites for practicing skills (see page 1 for General Safety for All Subjects). Mathematics teachers also may address underlying principles of cybersafety by reminding students that the use of reasoning and logic can extend to evaluating online situations. Data about cyber crimes and other cybersafety issues can be used as examples in logic-based problems or to provide data for graphing exercises. Sources for statistics include the following:

http://www.netsmartz.org/safety/statistics.htm

http://www.ojp.usdoj.gov/ovc/publications/bulletins/internet_2_2001/internet_2_01_6.html

http://www.safersurfers.org/survey.htm

Listed below are Virginia Standards of Learning which lend themselves to integrating Internet safety with a brief explanation of how the two can be connected.

MATHEMATICS

Elementary

3.21, 4.19, 4.20, 5.18, 5.19
Students could use data about cybersafety issues.

MATHEMATICS

Middle

6.18, 6.19, 6.20, 7.16, 7.17, 7.18, 8.12, 8.13
Students could use data about cybersafety issues.

Critical Thinking Across the Curriculum
http://mcckc.edu/longview/ctac/graphs.htm
Although this resource is not a lesson plan, it can provide a good reference for students exploring how data can be presented and misrepresented using charts and graphs.

High

A.4, A.5, AII/T.19, PS.1, PS.8, PS.9
Students could use data about cybersafety issues.

PS.9
Students could use data about information found on the Internet.

G.1
Students can explore logical arguments using information about cybersafety.

DM.12
Students can use logic techniques to analyze arguments on Web sites.

Forensic Problem Solving and Einstein: The Vanishing Videos Mystery
http://www.wiredsafety.org/wiredlearning/Einstein/index.html
This logical-thinking lesson can help students understand how online predators gather bits of information to target victims.

www.doe.virginia.gov/VDOE/Technology