



## **Learning, Communication, and 21<sup>st</sup> Century Skills: Students Speak Up**

For use with NetDay Speak Up Survey Grades 6-12

**Grades:** 6-12

**Subjects:** Language Arts, Social Studies/History, Math, Government, Civics, Career or Job Training

**Suggested Time:** One Class Period (50 minutes)

### **Lesson Overview**

Students will reflect on learning, communication, and their preparation for future jobs including the role technology and the Internet play in these areas. There are 8 suggested activities listed in this lesson plan. Start with the warm up activity and then select any of the activities that are appropriate for your students. The wrap up activity is a great way to get your students ready for participating in the Speak Up survey.

### **Activity List**

1. Warm-up Exercise – How Do You Use Technology for Learning? (10 minutes)
2. Class Discussion – Effective Use of Technology (15 minutes)
3. Class Activity – Technology and Education in the News (20 minutes)
4. Group Activity – Challenges and Obstacles (15 minutes)
5. Group Activity – Create an Action Plan (30 minutes)
6. Wrap Up – The Big Picture (15 minutes + homework)
7. Individual Activity – Speak Up Surveys (15 minutes)
8. Extension – Compare results of your school with the national data (optional)

### **Objectives**

Students will

- Reflect on their use of technology for learning and communication both inside and outside of school
- Consider how their math, science, and technology education is preparing them for future success
- Discuss their opinions and findings with peers
- Suggest ways that technology and Internet use can be improved in their school
- Engage in civic responsibility by participating in school site decision-making

### **Teacher Preparation**

- Confirm that your school is registered for the 2006 Speak Up event ([www.netdayspeakup.org](http://www.netdayspeakup.org))
- Preview the survey. ([http://www.netday.org/SPEAKUP/speakup\\_surveys.htm](http://www.netday.org/SPEAKUP/speakup_surveys.htm))
- Reserve computer lab or mobile laptop for class use, set up a station in the classroom where students can complete the survey, or assign the completion of the survey as homework.



## How To Speak Up – Tips For Having Your Students Take the Survey

The Speak Up survey site, [www.netdayspeakup.org](http://www.netdayspeakup.org), will be open **November 1-November 30, 2006**. Teachers and students use their school name or zip code and secret word to access the surveys online.

Students can take the survey from any Internet-connected computer, at home or at a library using your school name and secret word. If you want to have students take the survey in class, consider setting up the survey on several classroom computers as a survey center for the entire survey period. Students can rotate through the centers during class period activities.

A flyer is available for you to print out and send home with students at [http://www.netday.org/SPEAKUP/speak\\_up\\_how\\_to\\_2.htm](http://www.netday.org/SPEAKUP/speak_up_how_to_2.htm)

## Vocabulary

The Speak Up surveys ask questions about the tools that students use for learning inside and outside of the classroom. In preparation for the survey, discuss any new terminology with students.

- Chat rooms
- Critical thinking
- Desktop computer
- Digital camera
- Discussion board
- DVD or CD burner
- Hand-held device (PDA)
- Instant Messenger (IM or AIM)
- Internet filters
- Laptop computer or Notebook computer
- MP3 player or iPod
- Online
- Online class
- Personal networking, like MySpace
- Podcast
- Scanner
- School portal, like Blackboard
- Search engine
- SmartBoard
- SmartPhone, like Blackberry or Sidekick
- Simulations
- Skype or VoIP (talking over the Internet)
- Software
- Tablet PC
- Text messaging
- Web logs (Blogs)
- Website

## Assessment

Teachers can evaluate students on their preparation and participation in group and class discussions. Students can print a copy of their survey completion confirmation to submit as proof of completion of the survey.

## ***Classroom Activities***

The following activities are designed to engage students in the survey experience and understand the importance of their participation. You may choose to do all or some of these exercises.

### **1. Warm-up Exercise – How Do You Use Technology? (10 minutes)**

Technology means different things to different people. For the purposes of this activity and the survey, we are using the term “technology” to mean all kinds of electronic devices, not just computers and the Internet. Start by reviewing questions 4, 6, and 26 of the survey with the class.

#### **4. Which of these technology products do you use on a weekly basis? (Select all that apply.)**

- a Desktop computer
- b Laptop computer
- c Tablet PC
- d Cell Phone
- e Hand-held device (PDA)
- f Digital camera or video camera
- g Scanner
- h DVD or CD burner
- i MP3 player or iPod
- j Video game player
- k Smartphone, for example Blackberry, Treo, or Sidekick
- l None of the above

#### **6. At school or for schoolwork: How do you use technology? (Select all that apply.)**

- a Online research
- b Drills and other practice software
- c Create slide shows, movies, or web pages for an assignment
- d Learn basic computer skills (keyboarding, word processing, etc.)
- e Learn advanced computer skills (digital photography, programming, web page development, etc)
- f Practice for tests or take tests online
- g Email or instant message classmates about assignments
- h Email or instant message teachers about assignments
- i Use simulations, other interactive software, or online tools
- j Check on assignments or grades online
- k Use online textbooks
- l Connect with industry experts for an assignment
- m Work on projects with students in other countries
- n Listen to a podcast on a class subject
- o Take an online class
- p Get help from an online tutor
- q None of the above

**26. Which of these statements about technology are true for you? (Select any that apply.)**

- a It helps me understand concepts and learn skills.
- b It helps me get better grades.
- c It helps me complete my schoolwork more efficiently.
- d It helps me find the most accurate and up-to-date information.
- e It helps me collaborate with other students.
- f I learn new things on my own using technology.
- g I learn problem solving, critical thinking, communication, or teamwork skills.
- h I share my ideas, writings, and digital projects online.
- i It helps my parents keep up with my progress at school.
- j It helps me learn skills I need for future jobs.
- k None of the above.

Ask students to write in their journal a quick response to one or both of these questions:

- *How important is technology to the way you learn at school and outside of school?*
- *What is different about the way you use technology at school from the way you use it outside of school?*

**2. Class Discussion – How do you like to learn? (15 minutes)**

Review questions 28 and 29 from the survey below. As a class, discuss how students like to learn subjects like math and science. *Do you like hands-on activities? Practicing skills on the computer? Learning about careers? How much (or how little) is technology involved in the way you like to learn? Are there other ways you can see technology helping you with these subject areas?*

**28. How do you like to learn science?**

- a Design my own investigations
- b Visit places where I can see science in action
- c Talk to scientists about their careers
- e Use multimedia and interactive simulations
- f Conduct research on the Internet
- g Use equipment like microscopes and probes
- h Solve real life problems
- i Learn science that will help me in a job in the future
- j None of the above

**29. How do you like to learn math?**

- a Practice basic skills doing problems from my textbook
- b Use computers to practice math skills
- c Use multimedia and interactive simulations
- d Solve math puzzles
- e Talk to people who use math in their careers
- f Solve problems and be creative with math
- g Use equipment like calculators
- h Apply the math I learn to real-world situations
- i Learn math that will help me in a job in the future.
- j None of the above



### **3. Class Activity: Technology and Education in the News (20 minutes)**

As a class, read and discuss a current article about technology in schools. We suggest any one of these as a starting point with suggested discussion questions. Choose one or multiple topics and discuss students' reactions in class.

#### **TOPIC: TECHNOLOGY TOOLS AND RULES AT SCHOOL**

Textbooks dumped in favor of laptops - September 20, 2004

<http://www.eschoolnews.com/news/showStory.cfm?ArticleID=5270>

Sending Kids Back to School with Cell Phones

<http://www.schoolcio.com/showArticle.jhtml?articleID=192500041>

Social-Networking Web Sites Pose Growing Challenge for Educators

<http://www.edweek.org/ew/articles/2006/02/15/23facebook.h25.html>

Classroom Instruction: Rural Georgia school displays iPod ingenuity

<http://www.eschoolnews.com/news/showStorysr.cfm?ArticleID=6283>

- What kinds of technology should students be able to use at school?
- Should there be any restrictions about how to use technology at school?
- How does technology help students with their school work?
- How does technology distract students from their school work?
- How are decisions about technology use in schools made?

#### **OTHER TOPICS**

Review question 21 from the survey below. What do students know about these issues? As a Internet search exercise, see if students can find out more about one of these issues. What do students think? What is the responsibility of schools to protect students?

#### **21. Which of these are problems for kids at your school? (Choose any that apply.)**

- a Online bullying (cyberbullying)
- b Protection of privacy
- c Too much advertising and spam
- d Kids finding websites with bad content
- e Not enough access for all students to technology
- f Plagiarism and cheating
- g Not enough girls using technology
- h Safety from online predators
- i Too much time on computers
- j None of the above



#### **4. Group Activity: Challenges and Obstacles (15 minutes)**

Divide students into small groups to brainstorm generally about 5 challenges or obstacles to using technology and the Internet for school work. Is there any problem that is common to most challenges? What are some of their proposed solutions?

Use questions 7 and 27 and compare the responses to students' original thinking.

Encourage students to put themselves in the place of key decision makers in the school or district. How would they prioritize the problems? Which obstacle would they choose to tackle first? Encourage students to think about the trade-offs and new challenges that might be introduced by their proposal.

#### **7. What are the main obstacles you face in using technology at your school? (Select all that apply.)**

- a Not enough computers
- b Computers are not always available or convenient to use
- c Computers don't always work
- d Software is old or not good enough
- e Internet and computers aren't fast enough to download videos and other media
- f Not enough time in the school day
- g Teachers don't know how to use the technology
- h School filters or firewalls
- i Assignments don't encourage technology use
- j Rules against using my cell phone, email, or IM
- k Teachers control when we use the computers
- l I don't know how to use the technology
- m It's hard for students who don't have computers or Internet at home
- n Other obstacles
- o No obstacles

#### **27. If you were the principal at your school, what is the ONE thing you would change about how technology is used at your school today?**

- a Purchase more or better computers, software, and equipment (e.g., printers, scanners, or digital cameras)
- b Have faster Internet and wireless access.
- c Let students take classes online
- d Use online textbooks.
- e Allow students to use cell phones, IM, and email at school
- f Make sure computers work all the time.
- g Teach teachers how to use technology.
- h Encourage teachers to use IM to communicate with students
- i Provide a laptop to each student that they can take home
- j Give each student a USB memory stick
- k Less restrictive firewalls and filters.



## **5. Group Activity: Create an Action Plan – Student Voices Resource Center**

As a result of the 500,000 student surveys collected since 2003, NetDay Speak Up learned that students have a strong interest in being involved in decisions that impact how technology is used for their education. In response, we created the NetDay Student Voices Resource Center (SVRC), complete with How-to Guides and other resources to support student ideas and aid them in the creation of action plans.

With your students, review the first How-to Guide at the Student Voices Resource Center at [http://www.netday.org/SVRC/how\\_to\\_guides.htm](http://www.netday.org/SVRC/how_to_guides.htm). As a class activity have students work to identify goals for their school and then work in groups to outline action plans. The templates available in How-to Guide #11 scaffold the process for identifying goals, obstacles, adult partners, and communication plans to support their ideas.

- What is the goal?
- Who needs to be involved in deciding to implement the solution?
- What are the obstacles? How will it be funded?
- What steps need to be taken to implement the solution?
- How will students communicate their idea and gain support for it?

## **6. Your Voices, Your Futures**

Students in your grades might just be beginning to think about their future or else they may be very used to discussing their career aspirations. The skills listed below define "21<sup>st</sup> century skills" or important skills that your students might need in college, jobs, and careers. Have students work on this ranking activity on their own and then share their responses with in a class discussion.

**24. Please rank the following skills in how important they are for your future. (Rank from 1-10, with 1 being the most important and 10 being the least.)**

Knowing how to think critically

Knowing how to solve problems

Working in teams and collaborating with others

Awareness of global issues

Communicating with others

Understanding about money and how business works

Learning new things on my own

Knowing how to be a good, responsible worker

Being creative and "thinking outside the box"

Knowing how to use technology

## NetDay Speak Up Lesson Plan

Grades 6-12 Survey



As with previous years, the Speak Up survey concludes with two open-ended questions that focus on big-picture thinking. You might choose to assign one or both of these questions to students as a homework assignment.

- 38 Technology has made it possible for students just like you to share ideas and work on projects with students in other countries. If you could dream up a project to do with students from another country, what would that project be like? What would you like to learn from those students? What country would you like to work with?**
- 39 Tell us about a science or math lesson, activity or project that you have done (this year or last year) that was especially fun or interesting for you. What is different about that lesson, activity or project that makes it your favorite? What would you like to tell your school about how to make all science and math lessons as interesting as this favorite activity?**

### 7. Individual Activity: Speak Up Surveys (15 minutes)

Have students to complete the online Speak Up survey about how they use technology and the Internet. Students go to the survey site: [www.netdayspeakup.org](http://www.netdayspeakup.org) and enter their school name or zip code, and your school's secret word to access the survey. See the How-to Speak Up Guide ([http://www.netday.org/SPEAKUP/speak\\_up\\_how\\_to.htm](http://www.netday.org/SPEAKUP/speak_up_how_to.htm)) for more tips on administering the survey.

### 8. Extension: Compare results of your school with the national data

School contacts will be notified when the NetDay Speak Up data is available in January 2007. Your school's data will be accessible with the same secret word that you use to take the surveys. Students and teachers can access aggregated results for their own school as well as their district and to see how their experience with technology and the Internet relates to other youth. NetDay Speak Up will compile the results and share with local, state, and national decision-makers.

The comparative national data provides rich opportunities for data and statistics activities that support your math objectives.

## Curriculum Standards

### McREL Standards

From Content Knowledge, 3<sup>rd</sup> Edition, a compilation of content standards for K-12 curriculum, created by Mid-continent Research for Education and Learning (McREL).

#### **Civics – 6-12**

Standard 19 - Understands what is meant by "the public agenda," how it is set, and how it is influenced by public opinion and the media.

#### **Listening and Speaking 4-12**

Standard 8: Uses listening and speaking strategies for different purposes

#### **Media 4-12**

Standard 10: Understands the characteristics and components of the media



## NetDay Speak Up Lesson Plan

Grades 6-12 Survey



### Writing 4-12

Standard 1: Uses the general skills and strategies of the writing process

### Technology 4 –12

Standard 3: Understands the relationships among science, technology, society, and the individual

**ISTE National Education Technology Standards** ([http://cnets.iste.org/students/s\\_stands.html](http://cnets.iste.org/students/s_stands.html))

#### 3. Technology productivity tools

- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.

#### 4. Technology communications tools

- Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

#### 5. Technology research tools

- Students use technology to locate, evaluate, and collect information from a variety of sources.
- Students use technology tools to process data and report results. Evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

#### 6. Technology problem-solving and decision-making tools

- Students use technology resources for solving problems and making informed decisions.
- Students employ technology in the development of strategies for solving problems in the real world.