

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

**Grades:** 3-5

**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, communications, and preparation for future jobs, including the roles that technology and the Internet play in these areas. There are 7 suggested activities listed in this lesson plan. Start with the warm-up activity and 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? (10 minutes)
2. Class Discussion – What would help you do better in math? (15 minutes)
3. Group Activity – Mobile Devices for Schoolwork (10 minutes)
4. Group Activity – Technology Challenges (15 minutes)
5. Wrap Up – Our Voices, Our Futures (15 minutes + homework)
6. Individual Activity – Complete Speak Up Surveys (15 -20 minutes)
7. 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 in and outside of school
- Consider how their science and technology education is preparing them for future success
- Discuss their opinions and findings with peers
- Suggest ways that technology and the Internet use can be improved in their school
- Engage in civic responsibility by participating in school site decision-making

### **Teacher Preparation**

- Confirm registration of your school at <http://www.speakup4schools.org/speakup2011/>
- Preview the Speak Up 2011 survey questions (Included at the end of this lesson plan.)
- Reserve a computer lab or gain access to mobile laptops for classroom use, set up a station in the classroom where the students can complete the survey, or assign the completion of the survey as homework.

## **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.

- Critical thinking
- Computer
- Digital Reader (such as: Kindle, Nook)
- Firewalls
- Hand held game like Nintendo DS, GameBoy or Leapfrog
- Instant Messenger
- Interactive Whiteboard (SmartBoard, Polyvision)
- Laptops, Netbooks and Notebooks
- MP3 player or iPod
- Online
- Online class/courses
- Online textbooks
- Podcast
- PowerPoint
- School portal (Blackboard, Moodle)
- Search engine
- SmartPhone, (PDA's: Blackberry, iPhone, Droid)
- Simulations
- Skype
- Social Networking
- Tablet computer (such as iPad)
- Text messaging
- Video game player like xbox, Nintendo or Wii
- Virtual Worlds (like Webkinz, Club Penguin or Whyville)
- Website

## **Assessment**

*Teachers can evaluate the students on preparation and participation in group and class discussions. Students can print out a copy of their survey completion confirmation (last page) to submit as proof of completion of the survey. Survey Identifier number is located at the bottom.*

### ***Classroom Activities***

The following activities are designed to engage the 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 this activity and the survey, we are using the term “technology” to mean different types of electronic devices, not just computers and the Internet. Start by reviewing the sample survey questions below with the class.

##### ***How do you use technology for schoolwork? (Check all that apply) Question #7***

- Check on my grades
- Complete writing assignments
- Create a Powerpoint
- Do online experiments for science
- Email, IM or text message my teacher
- Email, IM or text message other students
- Get help from an online tutor
- Listen to a podcast for class
- Play educational games
- Post to blogs or wikis (like a journal)
- Practice math problems
- Take a class online
- Take tests online
- Upload assignments to school portal
- Use online textbooks
- Use the Internet for research
- Watch a video to help with my homework
- None of the above

##### ***How do you use Internet tools outside of school? Question #14***

- Create a list of websites I want to share with others
- Create videos to post and share with others
- Do internet research
- Download or listen to music
- Go to websites for TV shows or sports
- Go to websites to learn about things
- Play in 3D virtual worlds like Webkinz, Club Penguin or Whyville
- Play video or online games
- Send E-mails or Instant Messages
- Share photos
- Talk to others through the Internet
- Update my profile on websites like Webkinz, Club Penguin, or Whyville
- Watch videos
- Write for a blog (like a journal, etc.)
- I don't use the Internet outside of school
- None of the above

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

- What kinds of technology do you use?
- How important is technology to the way you learn at school and outside of school?

#### **2. Class Discussion – What would help you do better in math? (15 minutes)**

Review the questions below from the survey. As a class, discuss ways that could help students do better in math. Being able to communicate with your teacher after class through email or text message? Playing online games to help learn a certain topic? Taking an online class or having

access to an online tutor? 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 math (such as animation games)?

***Which of these would help you do better in math? Question #18***

- Being able to text or email my teacher with my questions
- Having a math website that could help me with my homework
- Having access to an online math tutor
- Learning from a teacher who is excited about math
- Playing online or computer based math games
- Practicing problems from my textbook
- Solving real-world problems using math
- Taking an online math class
- Using an online textbook
- Using blocks, counters and shapes
- Watching math videos
- Working on math problems with my classmates
- None of the above
- Other

**3. Group Activity: Technology Challenges (15 minutes)**

Divide the students into small groups or pairs to brainstorm 1 to 2 challenges or obstacles in using technology, including computers and the Internet, for school work. Write the challenges on the board for the students to see. Help the students identify any key problems such as not enough computers, computers that don't work all the time, and so on. Review the question below and compare the responses to the list generated by the class.

***What keeps you from using technology at your school? (Check all that apply) Question #8***

- Computers are not always available or easy to get to
- I am unable to access the Internet
- I cannot access my personal email account
- I cannot email or IM to classmates
- I cannot use my own laptop
- I cannot use my own cell phone, smart phone, tablet computer or MP3 player
- Internet is not fast enough
- My school blocks websites I need
- None of the above
- Other (If Other is selected, please specify.)

Have the students return to their small groups and brainstorm solutions to one of the key problems identified by the class. Have them share their proposed solutions with the class.

Next, review the question below and have the students design their own schools. *What is first thing they would change at the school about technology? How does their choice help students learn?*

***Imagine you are in charge of building a new school. What would you include in that new school for kids to use? (Check all that apply) Question #20***

- Ability to use the Internet anywhere at school
- Computer for every student to use at school such as: laptop
- Do webinars or video conferences with people outside of the school
- Handheld devices for students to answer questions (clickers)

## Speak Up Lesson Plan Grades 3-5 Survey



- High speed color printer
- Interactive whiteboards (such as Smartboard, Polyvision)
- Mobile devices (e.g. smartphones or MP3 players)
- Online Classes
- Online textbooks
- Online, computer or video games
- School website or portal
- Software customized to my learning needs
- Tablet computers (such as: iPad)
- Tools to communicate with others (Email, IM or text messaging)
- Tools to create podcasts or videos
- Tools to help me organize my schoolwork
- Tools to work with others (like blogs, wikis, Google Docs, etc )
- Other

### **4. Group Activity: Mobile devices for schoolwork (10 minutes)**

Ask the students to brainstorm a list of how mobile devices could be used in the classroom. Encourage them to be creative. Then, have them respond to the question below from the survey. Ask students to think of specific subjects that would benefit from the use of mobile devices. Have students share their ideas about how mobile devices might be helpful in the classroom with each other.

*If you were allowed to use your own mobile devices like a smartphone (iPhone, Droid, Blackberry) or tablet computer (iPad) at school, how would you use it for schoolwork? Question #11*

- Check my grades
- Create a video or podcast in my class
- Email, IM or text message my classmates
- Email, IM or text message my teacher
- Find out about things going on at school
- Go to my teacher's website or school portal
- Help other students in my class
- Learn about activities at school
- Look up information on the internet
- Play educational games
- Read my online textbook
- Receive reminders and alerts
- Record a lesson so I can listen to it later
- Take notes in class
- Use the calendar
- Work on projects with my classmates

The Speak Up survey concludes with two open-ended questions that focuses on big-picture thinking. You may assign it to the students as a homework assignment.

*Pretend that you are "Principal for the Day" at your school. Your #1 goal as Principal is to improve learning for all students. How would you use technology to do that? What kinds of new technology does your school need? How would students and teachers use these new tools? Remember - you are in charge now and your classmates are counting on you!*

*How can technology help you learn how to be creative? How have you used technology to create art, music or video projects? What technology should be in your school to help you with art, music or video projects?*

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### **5. Wrap Up – Our Voices, Our Futures**

As a closing to any of the activities you've completed above, have the students share any closing ideas about how they would like to use the role technology plays in their lives

### **6. Individual Activity: Complete Speak Up Surveys (15 – 20 minutes)**

Have the students complete the Speak Up survey about how they use technology and the Internet at the survey site: <http://www.speakup4schools.org/speakup2011/>. Enter the school name and state, and your school's secret word to access the survey.

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

School contacts will be notified when the Speak Up data is available in February 2012. Your school's data will be accessible using a special admin password provided to your Speak Up contact. Teachers can access to the aggregated results for their own school as well as their district and see how their experience with technology and the Internet relates to other youth. Project Tomorrow 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 – 3-5 (Level II)**

Standard 8.5 - Understands the focus on the school, community, state, and nation in American society (e.g., people should try to improve the quality of life in their schools, communities, states, and nation; people should help others who are less fortunate than they and assist them in times of need, emergency, or natural disaster)

<http://www.mcrel.org/compendium/reference.asp?item=benchmark&BenchmarkID=2479&subjectID=14>

**Listening and Speaking 3-5 (Level II)**

Standard 8: Uses listening and speaking strategies for different purposes

<http://www.mcrel.org/compendium/standardDetails.asp?subjectID=7&standardID=8>

**Writing 3-5 (Level II)**

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

<http://www.mcrel.org/compendium/standardDetails.asp?subjectID=7&standardID=1>

**Technology 3-5 (Level II)**

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

<http://www.mcrel.org/compendium/standardDetails.asp?subjectID=19&standardID=3>

**ISTE National Education Technology Standards**

<http://www.iste.org/standards/nets-for-students/nets-student-standards-2007.aspx>

**1. Creativity and Innovation**

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

**2. Digital Citizenship**

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

**1.) What grade are you in?**

- Grade 3
- Grade 4
- Grade 5

**2.) Are you a...**

- Girl
- Boy

**3.) Thinking about the other students in your class, do you...**

- Know more than other students about technology
- Know about the same as other students about technology
- Know less than other students about technology

**4.) Which of these things do you have for your own use? (check all that apply)**

- Cell Phone (that does not have Internet access)
- Smartphone such as iPhone, Droid, Blackberry
- Computer that is provided to me by my school
- My own personal computer or laptop
- Tablet computer (such as: iPad)
- Digital Reader (such as: Kindle, Nook)
- MP3 player or iPod
- Hand-held game like Nintendo DS or GameBoy
- Video game player like Xbox, Playstation or Wii
- Other

**5.) At home, do you have a computer?**

- Yes, but it does not have the Internet
- Yes, and it has slow Internet (dial-up)
- Yes, and it has fast Internet (such as: DSL, cable, Broadband)
- No, I only use the Internet at the library or my afterschool program
- No, I only use a computer or the Internet at school

**6.) How often do you use the computers at your school?**

- Every day
- A couple of days a week
- A couple of days a month
- Never
- I don't know

**7.) How do you use technology for schoolwork? (check all that apply)**

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- Check on my grades
- Complete writing assignments
- Create a Powerpoint
- Do online experiments for science
- Email, IM or text message my teacher
- Email, IM or text message other students
- Get help from an online tutor
- Listen to a podcast for class
- Play educational games
- Post to blogs or wikis (like a journal)
- Practice math problems
- Take a class online
- Take tests online
- Upload assignments to school portal
- Use online textbooks
- Use the Internet for research
- Watch a video to help with my homework
- None of the above

**8.) What keeps you from using technology at your school? (check all that apply)**

- Computers are not always available or easy to get to
- I am unable to access the Internet
- I cannot access my personal email account
- I cannot email or IM to classmates
- I cannot use my own laptop
- I cannot use my own cell phone, smartphone, tablet computer or MP3 player
- Internet is not fast enough
- My school blocks websites I need
- None of the above
- Other

**9.) What could your school do to make it easier to use technology?**

- Let me access the school network from home or school
- Let me access the websites I need
- Let me recharge my devices at school
- Let me get to my schoolwork online from home
- Let me use my own cell phone, smartphone, tablet computer or MP3 player
- Let me use my own computer at school
- Let me work with an online tutor
- Make it easy to get to the Internet
- Provide me a laptop that I can use at school
- Provide tools for me to communicate with my teacher(s) at anytime
- Provide tools for me to organize my work
- Provide tools so I can email, IM or text my classmates
- Provide tools to make it easy to work with each other at school
- Nothing - I like the way things are
- Other

**10.) Thinking about how you like to read, which of these is true for you?**

- My favorite way to read is to read stories on a computer or iPad
- My favorite way to read is with printed books
- I think it is better for the environment to read on the computer
- Reading a long time on the computer hurts my eyes
- I sometimes get distracted when I am reading on the computer
- Reading is more interesting to me when I am reading on a computer
- I remember more about the story when I read a printed book
- I am a better reader because I read more on a computer
- None of these are true for me

**11.) If you were allowed to use your own mobile devices like a smartphone (iPhone, Droid, Blackberry) or tablet computer (iPad) at school, how would you use it for schoolwork?**

- Check my grades
- Create a video or podcast in my class
- Email, IM or text message my classmates
- Email, IM or text message my teacher
- Find out about things going on at school
- Go to my teacher's website or school portal
- Help other students in my class
- Learn about activities at school
- Look up information on the internet
- Play educational games
- Read my online textbook
- Receive reminders and alerts
- Record a lesson so I can listen to it later
- Take notes in class
- Use the calendar
- Work on projects with my classmates

**12.) Would you like to take an online class for school?**

- Yes
- No
- Maybe
- Not sure
- I don't know what that is

**13.) Do you like taking tests on the computer?**

- Yes
- No
- Maybe
- Not sure
- I have never taken a test on the computer

**14.) How do you use Internet tools outside of school?**

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- Create a list of websites I want to share with others
- Create videos to post and share with others
- Do Internet research on things that interest me
- Download or listen to music
- Go to websites for TV shows or sports
- Go to websites to learn about things
- Play in virtual worlds like Webkinz, Club Penguin or Whyville
- Play video or online games
- Send E-mails or Instant Messages
- Share photos
- Talk to others through the Internet
- Update my profile on websites like Webkinz, Club Penguin, or Whyville
- Watch videos
- Write for a blog (like a journal, etc.)
- I don't use the Internet outside of school
- None of the above

**15.) When you grow up, would you like a job that uses science, math or computers?**

- No, those sound too hard
- No, I like other things better
- No, my parents say that other jobs are better
- Maybe, I would like to know more about them
- Yes, I am a little interested in a job like that
- Yes, I am very interested in a job like that
- No, I'm interested in other jobs
- Other

**16.) When you grow up, would you like to have a job as a teacher?**

- No, that sounds too hard
- No, I like other things better
- No, my parents say other jobs are better
- Maybe, I would like to know more about that
- Yes, I am a little interested in a job like that
- Yes, I am very interested in a job like that
- No, I am interested in other jobs
- Other

**17.) How would you like to learn more about future jobs and careers?**

- Attend a summer camp
- Attend an after school program
- Find information on a website
- Have people from those jobs talk to us at school
- Join a science or math competition (for example, a science fair)
- Play an online game where I am working in the career
- Podcasts or videos about the careers
- Take a virtual tour of the company or an office
- Take an online class
- Use a mobile application to explore careers

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- Use the same tools in my classroom that adults use at work
- Other

**18.) Which of these would help you do better in math?**

- Being able to text or email my teacher with my questions
- Having a math website that could help me with my homework
- Having access to an online math tutor
- Learning from a teacher who is excited about math
- Playing online or computer based math games
- Practicing problems from my textbook
- Solving real-world problems using math
- Taking an online math class
- Using an online textbook
- Using blocks, counters and shapes
- Watching math videos
- Working on math problems with my classmates
- None of the above
- Other

**19.) Read these sentences. Check the box if you agree with them. (Check all that apply)**

- Homework helps me practice what I have learned
- I am doing well in school
- I am having problems with my school work
- I am worried about my future
- I don't like school
- I feel I am prepared to do well in school
- I feel safe at school
- I know how to be safe when using the Internet
- I like what I'm learning in school
- I think my school cares about me
- I want to work hard
- I wish my classes were more interesting
- My grades don't match what I know
- My parents are very involved in my education
- Teachers or my parents want me to do well in school
- There is at least one adult at school that I can talk to about problems

**20.) Imagine you are in charge of building a new school. What would you include in that new school for kids to use? (Check all that apply)**

- Ability to use my own mobile device or computer at school
- Computer for every student to use at school such as laptop
- Do webinars or video conferences with people outside of the school
- Handheld devices for students to answer questions (clickers)
- High speed color printer
- Interactive whiteboards (such as Smartboard, Polyvision)

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- Mobile devices such as smartphone or MP3 player
- Online Classes
- Online textbooks
- Online tutors
- Online, computer or video games
- School website or portal
- Software customized to my learning needs
- Tablet computers (such as: iPads)
- Tools to communicate with others (Email, IM or text messaging)
- Tools to create podcasts or videos
- Tools to help me organize my schoolwork
- Tools to work with others (like blogs, wikis, GOOGLE Docs, etc )
- Other

### Open Ended:

**21.) Pretend that you are “Principal for the Day” at your school. Your #1 goal as Principal is to improve learning for all students. How would you use technology to do that? What kinds of new technology does your school need? How would students and teachers use these new tools? Remember - you are in charge now and your classmates are counting on you!**

**22.) How can technology help you learn how to be creative? How have you used technology to create art, music or video projects? What technology should be in your school to help you with art, music or video projects?**