Learning, Communication, and 21st Century Skills:

Students Speak Up

Grades: 3-5

Subjects: Language Arts, Social Studies/History, Government, Civics, Career/Job Training, Math (Extension)

Suggested Time: One Class Period

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. Review vocabulary and start with the warm-up activity, 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? (10 minutes)
2. Group Activity – Technology Challenges (15 minutes)
3. Group Activity – Video Games as Part of the School Day (10 minutes)
4. Group activity – Jobs and Careers
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 Internet use can be improved in their school
- Engage in civic responsibility by participating in school site decision-making

Resources

- Poster board or white board to record ideas
- Writing journals and/or paper
- Pencils

Teacher Preparation

- Confirm registration of your school at speakup.tomorrow.org
- Preview the Speak Up 2017 survey questions at: http://www.tomorrow.org/speakup/speakup_surveys.html
- 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
- Digital Citizenship
- Digital games
- Interactive Whiteboard (SmartBoard, Polyvision)
- Internet
- Laptops, Chromebooks and 2-in-1 laptops
- Mobile app
- Mobile device
- Mobile reading device (like a Kindle or Nook)
- Online
- Online class/courses
- Online textbooks
- PowerPoint, Prezi
- Coding Programs (like Scratch, Minecraft)
- Smartphone (iPhone, Samsung Galaxy)
- Simulations
- Skype
- STEM (science, technology, engineering and math)
- Social Networking
- Tablets (such as iPad)
- Text messaging
- Blogs
- 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 to submit as proof of completion of the survey.

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.

Which of these things do you do with a tablet, laptop or Chromebook to help you with schoolwork? (Question 9)

Check grades
Create documents to share with my classmates and teachers
Search for things on the Internet
Email my teacher with questions
Look up school or class information
Play digital learning games
Read online books
Get reminders about tests and when homework is due
Take notes in class
Take photos of class assignments or textbook pages
Take online tests
Upload homework to a class website or portal
Use online dictionary or thesaurus
Use online textbooks
Watch a video made by my teacher
Watch videos that help me learn (like Kahn Academy)
Work with other students on a project or comment on their work
I don't use computers in my class
Other

How do you use Internet outside of school?

Create videos to post online (like on YouTube)
Do Internet research on things that interest me
Play in virtual worlds like JumpStart, Club Penguin or Webkinz
Play video, online, or digital games
Send emails
Text message my family
Text message my friends
Share photos
Talk to others through the Internet (like Skype)
Update my profile on websites like JumpStart, Club Penguin, or Webkinz
Watch TV shows online
Watch videos
Write for a blog (like a journal, etc.)
I don't use the Internet outside of school

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 2. Group Activity: Technology Challenges (15 minutes)

Divide the students into small groups or pairs to brainstorm 1 to 2 challenges or obstacles in accessing the Internet. 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.

Do any of these stop you using technology at school? (Student may answer more than once) (Question 7)

- o Cannot use the Internet everywhere at school
- o Internet is slow
- o Not enough computers for students to use at school
- o My school doesn't let me go on websites that I need for schoolwork
- o Not allowed to use technology to talk with classmates
- o Not allowed to use my mobile devices at school
- o Not allowed to use social media
- o Teachers don't know how to use technology
- o Teachers don't let us use technology enough
- o Too many rules against using technology
- o I rarely use technology at school
- o Other

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 building a new school. Which of these things would you have in that school to help students learn? Mark the things you would want. (One response per student) (Question 14)

- o Chromebook or laptop for every student to use at school
- o Google Apps for Education
- o Interactive whiteboards
- o Internet access anywhere at school
- o Mobile apps for learning
- o Online tests or quizzes
- o Online textbooks
- o Online tutors
- o Digital learning games
- o Online videos and movies
- o Tools to connect and work with others (like Edmodo)
- o Tablet for every student
- o Tools to make videos
- o Other

Extend this activity by having students write a persuasive letter outlining the problem, their solution(s), and how this solution will benefit student learning.

3. Group Activity: Digital Citizenship (10 minutes)

Digital citizenship is the set of norms of appropriate, responsible behavior with regard to technology use. These are some examples of how to be a good digital citizen that you may go over with your students:

- Appreciating that everyone has digital rights as well as responsibilities to the society at large
- Knowing how to be safe online and use safeguards to protect our information and ourselves
- Knowing how to use various communications tools appropriately
- Knowing how to use, and how to learn to use, technology for learning purposes
- Learning how to be an effective consumer in a digital economy
- Learning how to protect one's self from the physical and psychological dangers of technology use
- Understanding ethical and lawful use of digital tools
- Understanding that not everyone has access to technology
- Understanding what are appropriate and inappropriate digital behaviors

Choose a few of these and ask students to brainstorms examples of good digital citizenship according to those practices. Next, have them respond to the sample questions below.

A good digital citizen is a student who knows how to use technology in the right way and knows how to be safe online. Have you been taught how to be a good digital citizen? (Question 10)

- o Yes
- o No
- o Not sure

Who taught you how to be a good digital citizen? (Question 11)

- o After school program leader
- o Classroom teacher
- o Computer teacher
- o Older students
- o Parents or other family members
- o Police officer
- o School librarian
- o I learned on my own
- o No one has taught me this
- o Other

4. Group activity: Future jobs and careers (10 minutes)

Start by asking the students the questions below.

When you grow up, would you like a job that uses science, math, or computers? (Question 16)?

- o Yes
- o No
- o Not sure

When you grow up, would you like to be a teacher? (Question 17)

- o Yes
- o No
- o Not sure

Next, ask the students what jobs they would like to have when they grow up and write their answers on the board. Ask them how they can learn more about those jobs by having them answer the question below:

How would you like to learn more about jobs and careers that you can have when you grow up? (Student may answer more than once)

Go to an after school program
Go on a field trip to a company or office
Have people from those jobs talk to us at school
Learn more about the job by playing an online game
Learn about jobs from online videos
Use a mobile app to learn about different jobs
Participate in a science or math fair
Go to a summer camp (like space camp)
Use technology tools to make things (like 3D printers and maker software)

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 the role technology plays in their lives and how they would like to use technology to improve learning. End the discussion by having the student answer the open-ended question:

Open Ended Question:
Tell us about your favorite online game or computer activity that helps you with learning. We want to learn from you what students like to do with technology and what games and activities are good for school

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

Have the students complete the Speak Up survey individually or as a class about how they use technology and the Internet at the survey site: speakup.tomorrow.org. If students take the survey individually they will enter the school name and state, and your school's secret word to access the survey. Or contact your district primary contact to receive your school specific direct start links. If facilitating as a group survey download a copy of the group instructions here: http://www.tomorrow.org/speakup/promo_instructions_group.html or use the question response template below to record your classes answer and then follow the steps at Speakup.tomorrow.org to submit a group 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 2018. 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

ISTE National Education Technology Standards

http://www.iste.org/standards/for-students

1. **Empowered Learner**

   Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences. Students:

   a. articulate and set personal learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process itself to improve learning outcomes.

   b. build networks and customize their learning environments in ways that support the learning process.

c. use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.

d. understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.

2. Digital Citizen

Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical. Students:

a. cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.

b. engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.

c. demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.

d. manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.

3. Knowledge Constructor

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others. Students:

a. plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.

b. evaluate the accuracy, perspective, credibility and relevance of information, media, data or other resources.

c. curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.

d. build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

4. Innovative Designer

Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions. Students:

a. know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.

b. select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.

c. develop, test and refine prototypes as part of a cyclical design process.

d. exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

5. Computational Thinker

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:

a. formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.

b. collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.

c. break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

d. understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

6. Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. Students:

a. choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.

b. create original works or responsibly repurpose or remix digital resources into new creations.

c. communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.

d. publish or present content that customizes the message and medium for their intended audiences.

7. Global Collaborator

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. Students:

a. use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.

b. use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.

c. contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

d. explore local and global issues and use collaborative technologies to work with others to investigate solutions.

Common Core State Standards

For English Language Arts & Literacy

College and Career Readiness Anchor Standards for Speaking and Listening (K-5)

http://www.corestandards.org/ELA-Literacy/CCRA/SL/

Comprehension and Collaboration

CCSS.ELA-Literacy.CCRA.SL.1 Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

CCSS.ELA-Literacy.CCRA.SL.2 Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

Presentation of Knowledge and Ideas

CCSS.ELA-Literacy.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

CCSS.ELA-Literacy.CCRA.SL.5 Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

College and Career Readiness Anchor Standards for Writing (K-5)

http://www.corestandards.org/ELA-Literacy/CCRA/W/

Text Types and Purposes

CCSS.ELA-Literacy.CCRA.W.1 Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

Research to Build and Present Knowledge

CCSS.ELA-Literacy.CCRA.W.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

Range of Writing

CCSS.ELA-Literacy.CCRA.W.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Dear Teachers,

If you are facilitating a group survey, please follow the instructions below.

Instructions

1. **This survey contains 19 multiple choice and 1 open-ended question.** All of the questions let you enter the number of students responding. Print the survey at http://www.tomorrow.org/speakup/promo_instructions_group.html or contact the Project Tomorrow Team at speakup@tomorrow.org for a copy and use it to collect and tally your group or class responses.
2. **As a class, ask students to raise their hands to respond to each question and record the results.** For some questions, you may want to receive written responses to protect students' privacy.
3. **For the open-ended questions**, we recommend that you facilitate a short class discussion to select your group's favorite answers to these questions. Please feel free to put in as many of your students' ideas as you wish.
4. **When you are ready to enter all of the survey data**, log onto https://speakup.tomorrow.org to enter the results. (If you have already collected your students' responses, please press the "Start Survey" button below to enter the data). Remember this is a group survey, **please enter the total number of students responding to each survey option.**
   Please note: We have disabled the use of the ENTER on the survey screen - please use the TAB key to advance between survey options.

(Note: For younger students, you may want to split the survey into two class sessions depending on their attention span. The lesson plan available at http://www.tomorrow.org/speakup/promo.html will help you prepare students for any new vocabulary in this survey. Please feel free to skip a question or choice that has words that are unfamiliar.)

Here is the introductory text to read to your class if you wish:

Hello Students:

Our class has a very special opportunity today to share our ideas with a national organization that cares about how schools are using technology for learning.The name of the organization is Project Tomorrow and each year, Project Tomorrow asks teachers, students and parents to answer some questions on a survey about how they are using computers and the Internet both at school and at home. We are going to fill out that survey together today as a class.

There are 20 questions on the survey. I am going to read a question from the survey and then give you some possible answers. Please raise your hand when I read a possible answer that is true for you. The last question on the survey is a discussion question. So, we will have a discussion about your possible answers to that question. I will then input your ideas into the computer and send it to Project Tomorrow.

Students all over the country just like you are participating in this survey with their teachers. Your answers are very important to Project Tomorrow. The people at Project Tomorrow will share what we tell them with our national leaders in Washington DC to help make it easier for all students and teachers to use technology in the classroom. They also want to thank you for your participation in this survey.

Let's get started. Here is the first question.

Speak Up Survey Grades 3–5 Group

If you complete the Grades 3-5 Group survey – the program will prompt you for the total number of students in your class that participated in the survey. This information is used for data validation only.

	Response	Number of Responses
1	**What grade are you in? (One response per student)**	**Number of Responses**
	☐ Grade 3	
	☐ Grade 4	
	☐ Grade 5	
2	**Raise your hand if you are a… (One response per student)**	**Number of Responses**
	☐ Girl	
	☐ Boy	
	☐ Decline to state	
3	**How much do you know about how to use technology? (One response per student)**	**Number of Responses**
	☐ I know more than others in my class	
	☐ I know the same as others in my class	
	☐ I know less than others in my class	
4	**Which of these mobile devices do you have for your own use? Don't count devices that your school has given you to use. (Student may answer more than once)**	**Number of Responses**
	☐ Phone that does not have Internet	
	☐ Phone with Internet (like iPhone, Samsung Galaxy)	
	☐ Laptop	
	☐ Laptop that can turn into a tablet	
	☐ Chromebook	
	☐ Tablet (like an iPad)	
	☐ Mobile reading device (like a Kindle or Nook)	

5	**When you are at home, how do you get online to do homework? (One response per student)**	**Number of Responses**
☐	Use a computer with slow Internet	
☐	Use a computer with fast Internet	
☐	Use a computer with WiFi	
☐	Use a family member's phone or tablet	
☐	Use my own phone or tablet	
☐	Use a laptop or tablet given to me by my school	
☐	I cannot use the Internet when I am at home	
6	**How often do you use technology at school to help you with learning? (One response per student)**	**Number of Responses**
☐	Every day	
☐	A few times a week	
☐	A few times a month	
☐	Once a month	
☐	Every few months	
☐	Never	
7	**Do any of these stop you from using technology at school? (Student may answer more than once)**	**Number of Responses**
☐	Cannot use the Internet everywhere at school	
☐	Internet is slow	
☐	Not enough computers for students to use at school	
☐	My school doesn't let me go on websites that I need for schoolwork	
☐	Not allowed to use technology to talk with classmates	
☐	Not allowed to use my mobile devices at school	
☐	Not allowed to use social media	
☐	Teachers don't know how to use technology	
☐	Teachers don't let us use technology enough	
☐	Too many rules against using technology	
☐	I don't use technology at school	
☐	Other	

8	**Which of these do you use when you are at school? (Student may answer more than once)**	**Number of Responses**
☐	I use my own mobile device (phone with Internet, tablet, laptop) to help with schoolwork	
☐	Laptop	
☐	Tablet (like an iPad)	
☐	Chromebook	
☐	Computers in the library	
☐	None of these	
9	**Which of these things do you do with a tablet, laptop or Chromebook to help you with schoolwork? (Student may answer more than once)**	**Number of Responses**
☐	Check grades	
☐	Create documents to share with my classmates and teachers	
☐	Search for things on the internet	
☐	Email my teacher with questions	
☐	Look up school or class information	
☐	Play digital learning games	
☐	Read online books	
☐	Get reminders about tests and when homework is due	
☐	Take notes in class	
☐	Take photos of class assignments or textbook pages	
☐	Take online tests	
☐	Upload homework to a class website or portal	
☐	Use online dictionary or thesaurus	
☐	Use online textbooks	
☐	Watch a video made by my teacher	
☐	Watch videos that help me learn (like Kahn Academy)	
☐	Work with other students on a project or comment on their work	
☐	I don’t use computers in my class	
☐	Other	

10	**A good digital citizen knows how to use technology in the right way and knows how to be safe online. Have you been taught how to be a good digital citizen? (One response per student)**	**Number of Responses**
	☐ Yes	
	☐ No	
	☐ Not sure	
11	**Who taught you how to be a good digital citizen? (Student may answer more than once)**	**Number of Responses**
	☐ After school program leader	
	☐ Classroom teacher	
	☐ Computer teacher	
	☐ Police officer	
	☐ Older students	
	☐ Parents or other family members	
	☐ School librarian	
	☐ I learned on my own	
	☐ No one has taught me this	
	☐ Other	
12	**Are you a good at solving math problems? (One response per student)**	**Number of Responses**
	☐ Yes	
	☐ No	
	☐ Not sure	

13	**What would help you become a better math student? (Student may answer more than once)**	**Number of Responses**
☐	Having a math tutor	
☐	Talking to people who use math in their job	
☐	Doing math problems with a friend	
☐	Doing math puzzles	
☐	Doing hand-on math activities	
☐	Doing math problems from a textbook or on a worksheet	
☐	Being a math buddy for younger students	
☐	Having a teacher who likes math	
☐	Being part of a math team that competes with other students	
☐	Understanding why learning math is important for me	
☐	Playing math games on a computer	
☐	Watching videos or movies about how to do math	
☐	Having an older student help me with math	
☐	Playing counting games	
☐	Singing songs about math	
☐	Using math blocks, counters, and shapes	
☐	Other	

14	**Imagine you are building a new school. Which of these things would you have in that school to help students learn? Mark the things you would want. (Student may answer more than once)**	**Number of Responses**
	☐ Chromebook or laptop for every student to use at school	
	☐ Google Apps for Education	
	☐ Interactive whiteboards	
	☐ Internet access anywhere at school	
	☐ Mobile apps for learning	
	☐ Online tests or quizzes	
	☐ Online textbooks	
	☐ Online tutors	
	☐ Digital learning games	
	☐ Online videos and movies	
	☐ Tools to connect and work with others (like Edmodo)	
	☐ Tablet for every student	
	☐ Tools to make videos	
	☐ Other	
15	**What is your favorite way to read a book or story? (One response per student)**	**Number of Responses**
	☐ Reading it as a printed book	
	☐ Reading it on a tablet or a computer	
	☐ Having the story or book read to me by the computer	
	☐ Reading the words while watching a video or movie	
16	**When you grow up, would you like a job that uses science, math, or computers? (One response per student)**	**Number of Responses**
	☐ Yes	
	☐ No	
	☐ Maybe	
17	**When you grow up, would you like to be a teacher? (One response per student)**	**Number of Responses**
	☐ Yes	
	☐ No	
	☐ Maybe	

18	**Would you like to learn how to write programs to make computers do things, like in Scratch or Minecraft? (One response per student)**	**Number of Responses**
	☐ Yes	
	☐ No	
	☐ I already do this myself	
	☐ I already do this in school	
	☐ I already do this in an after school program	
19	**Read these sentences. Mark the box if you agree with them. By using technology to help with my learning… (Students may answer more than once)**	**Number of Responses**
	☐ I work with my classmates more	
	☐ I talk to my teacher more	
	☐ My grades are better	
	☐ I am more creative	
	☐ I am a better thinker and problem solver	
	☐ I understand what we are learning in class better	
	☐ I have more control over how I learn things	
	☐ I get to learn at my own speed	
	☐ I finish more of my homework	
	☐ I like school more	
	☐ I share my ideas in class more	
	☐ I can go home and continue learning after school	

Open Ended:

20.) Tell us about your favorite online game or computer activity that helps you with learning. We want to learn from you what students like to do with technology and what games and activities are good for school.