*Learning, Communication, and College and Career Readiness Skills:*
*Students Speak Up*

**Grades:** 6-12

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

**Suggested Time:** One Class Period

### Lesson Overview
Students will reflect on learning, communication, and preparation for future jobs, including the roles that technology and the Internet play in these areas. There are 8 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 the Speak Up survey.

### Activity List
1. Warm-up Exercise – How do you use technology? (10 minutes)
2. Class Activity – Technology and Education in the News (20 minutes)
3. Group Activity – Challenges and Obstacles (15 minutes)
4. Group Activity – Our voices, Our future (30 minutes)
5. Wrap Up – The Big Picture (15 minutes + homework)
6. Individual Activity – Speak Up Surveys (15-20 minutes)
7. Extension – Compare the 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 by contacting the Speak Up Team at speakup@tomorrow.org or going to:
  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.

- Augmented or virtual reality environments
- Critical thinking
- College and Career readiness skills
- Digital Citizenship
- Digital content
- Digital games
- Digital learning
- Interactive Whiteboard (SmartBoard)
- Laptops, Chromebooks, and 2-in-1 laptops
- Learning management systems (like Blackboard)
- Mobile devices (smartphone, tablet, laptop)

- Mobile reading devices (like Kindle, Nook)
- Mobile apps
- Online assessments
- Online class/courses/curriculum, MOOCs
- Online textbooks
- School portal
- Simulations
- Social Media
- STEM (science, engineering, technology, and math)
- Tablet (such as iPad)
- Text messaging

## 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 all kinds of electronic devices, not just computers and the Internet. Start by reviewing the following Speak Up questions with the class:

**How do you use mobile devices (smartphones, laptops, tablets, Chromebooks) to help you with schoolwork or studying? (Check all that apply) (Question 8)**

- o Check grades
- o Create documents to share with my classmates and teachers
- o Email my teachers with questions
- o Look up school or class information
- o Play online or digital games for learning
- o Read digital books or online articles
- o Receive reminders and alerts about due dates for assignments and upcoming tests
- o Research on the Internet
- o Skype or Facetime with other students
- o Take notes in class
- o Take online tests or quizzes

- o Take photos of class assignments or textbook pages
- o Text classmates for help with schoolwork
- o Text my teachers with questions
- o Upload homework to a class website or portal
- o Use online dictionary or thesaurus
- o Use online textbooks
- o Watch a video made by my teacher
- o Watch educational videos (like Kahn Academy)
- o Work with other students on a project or comment on their work
- o I don't use a mobile device

**Which of these statements are true for you about your experiences in school? (Check all that apply)? (Question 9)**

- o Being able to use a mobile device in class is important for my learning
- o Doing well in school is important to me
- o For schoolwork reading, I would rather use a tablet or laptop than read a printed book
- o I am interested in learning at school
- o I am learning skills at school that will help me in the future
- o I believe that my school cares about me as a person
- o I learn more when I watch a video or movie than when I read a book or article
- o I wish my classes were more interesting

- o I wish my teachers used more technology in my classes
- o I would learn more if I could use more technology in my classes
- o Teachers are important to my learning
- o The subjects that I am learning at school are important for my future
- o The way we use technology in school is not helpful for my learning
- o There is at least one adult at school that I can talk to about school or personal problems
- o Using technology in my classes increases my interest in learning

**Which of these statements are true for you about your experiences outside of school? (Check all that apply) (Question 24)**

- o For personal reading, I would rather use a tablet or laptop than read a printed book
- o I have stronger personal relationships because of my use of social media
- o I like learning about new ideas
- o I like learning how to do things
- o I like learning how to make or build things
- o I like learning when I can be in control of when and how I learn
- o I know how to be safe when I am online
- o I know how to detect bias or opinions in the information that I read online
- o I know how to evaluate the accuracy of information I find online
- o I use technology more outside of school than I do when I am at school
- o I worry that I sometimes spend too much time online with my social media accounts
- o Knowing how to use technology is an important skill that will help me in the future
- o Sometimes I cannot do my homework because I don't have access to the Internet outside of school

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 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.

"New Report Reveals 10 Ways Students are Outpacing their Schools"
https://www.eschoolnews.com/2017/05/15/students-digital-schools/?all

- 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?

"To Teach Digital Citizenship Effectively, Educators Say It's Time to Unblock Social Media"
https://www.edsurge.com/news/2017-10-12-to-teach-digital-citizenship-effectively-educators-say-it-s-time-to-unblock-social-media

- How do you use social media for learning?
- What types of websites that you've tried to visit for schoolwork have been blocked?
- What do you think are some good ways to teach/learn about digital citizenship?

"Top 6 Digital Transformation Trends In Education"
https://www.forbes.com/sites/danielnewman/2017/07/18/top-6-digital-transformation-trends-in-education

- What do you think you would like to learn via augmented or virtual reality, and why?
- Do you have a favorite type of mobile device or computer to use for learning?
- What's your favorite classroom set up?
- What do you think of the idea of blended learning?

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

Divide students into small groups to brainstorm five challenges or obstacles to using technology and the Internet for schoolwork. Is there any problem that is common to most challenges? What are some proposed solutions?

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. Review the questions below and compare the responses to the list generated by the class.

**What prevents you from using technology at your school? (Check all that apply) (Question 6)**

- Internet access is not school wide
- Internet is too slow or inconsistent
- Lack of computers for students to use at school
- My school blocks websites I need for schoolwork
- Not allowed to text 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 for learning
- Teachers limit our technology use
- Too many rules against using technology
- I rarely use technology at school
- Other

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 designing your dream school. Which of these tools would have the greatest positive impact on your learning? (Check all that apply) (Question 15)**

- o Augmented reality apps
- o Chromebook or laptop for every student to use at school
- o Cloud-based communications and collaboration tools (like Google Apps for Education, Microsoft Office 365)
- o Online site that tracks all of my school year information including grades, test scores, and activities from kindergarten through high school even if I go to different schools
- o Digital content (animations, simulations, online articles, and resources)
- o Google Hangouts or other online group messaging in class
- o Interactive whiteboards
- o Internet access anywhere at school
- o Learning management systems (like Blackboard)
- o Mobile apps for learning
- o Online or virtual classes
- o Online tests and assessments
- o Online textbooks
- o Online tools that help organize schoolwork and provide access to important information
- o Online tutors
- o Online, video, and digital games
- o Online videos and movies
- o Social media tools for students to connect and work with others (like blogs, wikis, social networking sites)
- o Tablet for every student to use at school
- o Tools to help students create media projects (like video, audio)
- o Virtual reality experiences and hardware (headsets and devices)
- o Other

Extend this activity by having students write a letter or design a presentation in which they evaluate the problem, their solution(s), and how their solution(s) will benefit student learning.

### 4. Class Activity: Our Voices, Our Futures (30 minutes)

Students in grades 6th-12th may begin to think about their future or they may be very used to discussing their career aspirations. Have students work on ranking the choices below on their own and share their responses within a class discussion.

**How would you like to explore future careers or get prepared for a future job? (Check all that apply) (Question 21)**

- o Attend a student conference on different careers
- o Get real life experience (like working a part-time job, internship, or volunteering)
- o Go to summer camp (like space camp)
- o Follow experts in different careers on social media
- o Have career professionals teach lessons at school
- o Learn from teachers who have worked in a career field before becoming a teacher
- o Participate in an after school program
- o Participate in competitions to see how I rank compared to other students interested in that career
- o Play an online or digital game about a career
- o Shadow a career professional for a day
- o Take an online class about a particular career field
- o Take career technical education classes at my school or local college
- o Take field trips to see and talk with people working in those jobs
- o Understand why learning additional languages will help me with future jobs
- o Use an online quiz to identify my career interests or strengths
- o Use mobile apps or websites to explore careers
- o Watch videos about different jobs
- o Work with mentors from different career fields
- o Watch TEDTalks with experts talking about their careers

### 5. Wrap Up – The Big Picture (15 minutes + homework)

As with previous years, the Speak Up survey concludes with an open-ended question that focuses on big-picture thinking. You may assign this question to students as a homework assignment.

**Speak Up has asked students questions about technology use for 15 years and we have learned that students have really good ideas about how to use technology to solve all kinds of problems. A 9th grader we met recently inspired us to ask you this question. How could technology be better used to unify communities, eliminate differences between people, and make the world a safer, more peaceful place? What would you tell your elected leaders, school administrators, other students, or other adults in your life about creative ways that technology could be used to bring people together in your school or community, or across the nation and the world? Give us your best ideas – we are counting on you!**

### 6. Individual Activity: Speak Up Surveys (20 minutes)

Have the students complete the Speak Up survey about how they use technology and the Internet at the survey site: speakup.tomorrow.org. Enter the school name and state, and your school's secret word to access the survey. Or contact your district's primary contact for direct start links for your students' appropriate grade level.

## 7. Extension: Compare the results of your school with the national data (optional)

School contacts will be notified when the Speak Up data is available in February 2017. Your school's data will be accessible using an admin password provided by your Speak Up contact. Teachers can access aggregated results for their own school as well as their district and see how their students' experience with technology and the Internet relates to other students. 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

**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.

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**Common Core State Standards**

**For English Language Arts & Literacy**

**College and Career Readiness Anchor Standards for Reading**

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

**Key Ideas and Details**

CCSS.ELA-Literacy.CCRA.R.1 Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

**College and Career Readiness Anchor Standards for Speaking and Listening**

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

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.7 Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

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.

CCSS.ELA-Literacy.CCRA.W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

### 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.