

# Critical Thinking and Problem Solving Skills

*Exercise sound reasoning in understanding. Make complex choices. Understand the interconnections among systems. Frame, analyze and solve problems.*

## 21st Century Tools for Learning & Thinking

### 4th Grade



- Search engines & strategies
- Spreadsheet & graphing software
- Online sources
- Print resources
- Digital images
- Web publishing software
- Brainstorming software
- Graphics software (drawing, painting, image editing)
- Multimedia resources (clip art, video, sound, animations)
- CAI & simulation software
- Videoconferencing and interactive TV
- TV, Video, & DVD
- GIS & GPS tools

### 8th Grade



- Search engines & strategies
- Electronic reference material (online libraries, databases, encyclopedias, atlases, almanacs, E-texts)
- Primary Sources (text, graphic, audio, multimedia, & material culture)
- Print sources (newspapers, journals, books, magazines, maps)
- Graphics software (drawing, painting, photo & video editing)
- Publishing & multimedia creation (clip art, video, sound, animations, Web authoring, word processing & layout programs)
- Data collection, manipulation, & storage tools (spreadsheets, graphing, databases, digital cameras, surveys)
- Concept mapping/graphic organizers (Inspiration, Timeliner)
- Presentation tools (software, projection devices, “smart” whiteboards)
- CAI & simulation software
- Videoconferencing and interactive TV
- TV, Video, & DVD
- GIS & GPS tools

### 12th Grade



- Search engines & strategies
- Electronic reference material (online libraries, databases, encyclopedias, atlases, almanacs, E-texts)
- Primary Sources (text, graphic, audio, multimedia, & material culture)
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# Critical Thinking and Problem Solving Skills (continued)

Exercise sound reasoning in understanding. Make complex choices. Understand the interconnections among systems. Frame, analyze and solve problems.

## SAMPLE Student Outcomes for Learning & Thinking

### 4th Grade



1. Use digital reference material to identify and describe the natural resources, human resources, and/or capital goods needed for proposed economic activity in the regional community or state.

**E.G.** Students will research on the Internet the composition of Southwestern adobe, in order to dig the appropriate soil to make small adobe bricks for a model of a 17th century mission (San Xavier del Bac, Mission Santa Barbara, San Diego de Alcala, etc.).

2. Use technology to graphically display data used to make a complex choice involving a regional community or state public issue.

**E.G.** Students will make a spreadsheet showing the funding provided by school districts within their state for each public school pupil; they will display the information alphabetically and then by largest to smallest dollar amount, and discuss their observations about this data. Which districts do they think will be the most sought after and why? What might the differences be in the schools in the lowest funded areas compared with the highest funded areas?

### 8th Grade



1. Analyze problems in the past and evaluate the decisions made by individuals and groups involved.

**E.G.** Students use online databases and search engines to locate primary source material from the Civil Rights Movement and identify the problems the movement intended to address. Students present this information in a slide show and evaluate the effectiveness of a specific event, such as the 1965 march on Selma, Alabama, in reaching the movement's goals. Students then explore their local community for examples of equal rights, whether related to race, age, gender, or culture and document these examples using digital cameras.

2. Evaluate ethical considerations related to an issue or problem and determine whether alternative courses of action are/were available and/or viable given the circumstances.

**E.G.** Students and teacher brainstorm a list of problems from the recent past, such as responses to the 9/11 attacks, or hurricanes Katrina, and Rita. Cooperative groups choose a problem, develop ideas for finding materials online that detail the issues, and provide possible solutions. Groups use this information to evaluate the steps that were taken to deal with the problem they chose to

### 12th Grade



1. Analyze contemporary problems and evaluate the decisions made by individuals and groups involved.

**E.G.** In groups, students use the Internet and digital libraries to identify and analyze the work being done by various organizations to provide alternative, sustainable economic and environmental responses to significant resource depletion in specific regions. Student groups create wikis that explain their perspective on the effectiveness of the organizations.

2. Identify and analyze different ways that electronic news sources define and present a problem.

**E.G.** Students use various online news media sources from different areas in the Middle East to analyze how each describes the relations between Israel and Palestine and the reasons for the conflicts in that region. They then compare these portrayals with digitized primary news reports of the founding of Israel and articulate how and why the descriptions and explanations of the conflict differ.

3. Collect and analyze information about a public policy issue from diverse electronic news sources, look for bias and analyze how the information is interpreted differently.



# Critical Thinking and Problem Solving Skills (continued)

Exercise sound reasoning in understanding. Make complex choices. Understand the interconnections among systems. Frame, analyze and solve problems.

## SAMPLE Student Outcomes for Learning & Thinking (continued)

### 4th Grade



3. Access information to discover the interconnections between the role of government and a service it provides to the public.

**E.G.** All fourth graders in a school will be surveyed for sports and hobby interests, and results will be reported in graphs. Students will use GIS and GPS to show the location of areas in which these sports can be played throughout their community.

### 8th Grade



- investigate. Groups then create a multimedia presentation to teach the class their findings, or create an online blog in which students suggest and debate alternatives that might have been taken.
3. Identify and analyze different ways that electronic news sources define and present a problem.

**E.G.** Students conduct an online search and compile representative news reports about persons of Middle Eastern descent published in major online news sources around the country. Working in small groups, students review, analyze and discuss any apparent biases evident in the way news agencies report incidents of ethnic profiling and/or cooperation among various ethnic groups in America. Groups present their findings to the class in a slide show format and/or podcast.

4. Use electronic charting and graphic tools to graphically display data that can be used to make a complex choice involving a regional community or state public issue.

**E.G.** Using electronic reference material, students investigate the issues involved (economic feasibility, asbestos removal), and resources that would be needed to renovate a school built in

### 12th Grade



- E.G.** Students gather information on global warming from diverse electronic sources such as the United Nations, scientific associations, and non-profit organizations; research the organizations; and analyze how the beliefs and nature of the organization might influence the interpretation of the information. Using programs such as Timeliner or GIS, students then illustrate the history and impact of global warming on U.S. Territories. Students produce a news broadcast explaining the issue of global warming from the perspective of a resident of one of these territories.
4. Demonstrate an understanding through the use of technology about how the relationship among social, economic and governmental systems affects change in a community over time.

**E.G.** Working in groups, students follow an inquiry approach to analyze and present the relationship between changes in population in communities and zoning decisions made by local governments over a 20-year period by using information such as GIS, census data, digitized zoning and population distribution maps, and electronic transcripts of local government meetings.

5. Use technology to research and graphically display a reasonable prediction about a public issue.



# Critical Thinking and Problem Solving Skills (continued)

*Exercise sound reasoning in understanding. Make complex choices. Understand the interconnections among systems. Frame, analyze and solve problems.*

## SAMPLE Student Outcomes for Learning & Thinking (continued)

### 4th Grade



### 8th Grade



### 12th Grade



the 1950's. Students will use clip art, video and other multimedia products to demonstrate their position on the issue. Students will make a presentation containing charts and graphs as well as analysis to the school board recommending whether the school should be rehabilitated or abandoned in favor of building a new school and why.

**E.G.** Students use voting patterns, demographic and socio-economic data from the U.S. Census bureau for the counties in their state to predict the outcomes of an upcoming national, state or local election, and display their projection, with supporting information, on a digital map.



# Contextual Learning Skills

# SOCIAL STUDIES

The ability to take advantage of education in a variety of contexts both inside and outside the classroom; understanding that knowledge is acquired within a context.

## 21st Century Tools for Learning & Thinking



### 4th Grade

- Search engines & strategies
- Spreadsheet & graphing software
- Online sources
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- Graphics software (drawing, painting, image editing)
- Multimedia resources (clip art, video, sound, animations)
- CAI & simulation software
- Videoconferencing and interactive TV
- TV, Video, & DVD
- GIS & GPS tools



### 8th Grade

- Search engines & strategies
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- TV, Video, & DVD
- GIS & GPS tools
- Digital production tools (Digital photography & video)
- Video editing software
- Multimedia resources (clip art, video, sound, animations)
- Concept mapping/graphic organizers
- Presentation tools, blogs



### 12th Grade

- Search engines & strategies
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# Contextual Learning Skills (continued)

The ability to take advantage of education in a variety of contexts both inside and outside the classroom; understanding that knowledge is acquired within a context.

## SAMPLE Student Outcomes for Learning & Thinking

### 4th Grade



1. Use online tools to locate and distinguish among varying landforms and geographic features, such as mountains, plateaus, islands, and oceans.  
**E.G.** Using a search engine, find examples of 5 different landforms. In a presentation tool display each landform and identify its characteristics.
2. Identify and use various sources for reconstructing the past, such as documents, letters, diaries, maps, textbooks, photos, and others, in an electronic presentation.  
**E.G.** Use digital images to construct an electronic presentation depicting a timeline of a historical event, state history or family history.
3. Use technology tools to examine the interaction of human beings and their physical environment: the use of land, building of cities, and ecosystem changes in selected locales and regions.  
**E.G.** Compare a dated aerial photo of one's own community and a more recent aerial photo captured online. Identify the changes that have taken place and speculate the purpose(s) of the changes.

### 8th Grade



1. Take advantage of historical witnesses in one's own community to gain, record and present knowledge in a publicly accessible electronic format.  
**E.G.** Conduct and electronically record an interview of a community member who participated in a labor strike. Edit the interview to create a short video or podcast documentary highlighting how the strike impacted this person, his/her family, and the community. Broadcast it on the web, local access television, or show it at the local public library.
2. Conduct Internet research to identify and describe the roles of international and multinational humanitarian organizations.  
**E.G.** After conducting research using the Internet and electronic library databases, formulate a list of questions (e.g., questions about the Red Cross's efforts to provide humanitarian relief to children impacted by the civil war in Angola.) Email the questions to the proper contact person at one of the identified organizations and report to the class on their responses.
3. Observe and speculate about social and economic effects of environmental changes and crises resulting from phenomena such as floods, storms, and droughts.

### 12th Grade



1. Examine the interactions of ethnic, national, or cultural influences in specific situations or events.  
**E.G.** Create an online document with hyperlinks to help middle schoolers understand the Palestinian-Israeli conflict. Use the hyperlinks to provide background information and context for the past and current events.
2. Compare and contrast different political systems (their ideologies, structure, institutions, processes, and political cultures) with that of the United States, and identify representative political leaders from selected historical and contemporary settings.  
**E.G.** Using concept mapping/graphic organizer software, create a presentation that compares two political systems (including aspects such as: ideologies, structure, institutions, processes, leaders and their roles, and political culture) using both text and visuals.
3. Analyze how cultural values and beliefs are presented and leveraged in different societies to influence buying decisions.  
**E.G.** Using digital advertisements, students will examine how buying decisions are influenced by the values and beliefs of various locations within



# Contextual Learning Skills (continued)

# SOCIAL STUDIES

The ability to take advantage of education in a variety of contexts both inside and outside the classroom; understanding that knowledge is acquired within a context.

**SAMPLE Student Outcomes for Learning & Thinking (continued)**

**4th Grade**



**8th Grade**



**12th Grade**



**E.G.** Using video footage, digitally archived newspaper articles, photographs, government data, etc., describe the impact that the tsunami of December 2004 had on the economy of Thailand and speculate on the impacts it had on government services now and in the future.

4. Compare similarities and differences in the ways groups, societies, and cultures meet human needs and concerns.

**E.G.** Using online research, email interviews and personal experiences in other countries or regions, compare and contrast the homes, food, holidays, etc., to your own. Think about why they may or may not be similar and publish your reflections in a blog entry.

the United States and its five territories. (It may be important to determine whether the advertising campaign's goals were attained).

4. Identify and participate in an activity that will improve your local community, based on an objective evaluation of critical community needs.

**E.G.** Email local service agencies and community leaders to generate a list of critical community issues; select and participate in a volunteer activity that addresses one of these needs in a meaningful way. Create a PowerPoint presentation describing your reasons for selecting the activity, the results of your participation and the ongoing needs the community should address.



# Communication SOCIAL STUDIES

Articulate thoughts and ideas clearly and effectively.

## 21st Century Tools for Learning & Thinking



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- Concept mapping/graphic organizers
- Blogs (text & video), Cell phones



### 12th Grade

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# Communication (continued)

Articulate thoughts and ideas clearly and effectively.

## SAMPLE Student Outcomes for Learning & Thinking

### 4th Grade



1. Organize, and present information from the social sciences in clear and effective formats.

#### E.G.

- Write an e-mail to the local newspaper or a public official, explaining concerns about a community issue.
- Using a spreadsheet or charting program, illustrate simple data collected on a social issue (e.g., survey classmates on their opinions about a school or community issue) in graph form.
- Using graphic creation software, create a flyer or a door hanger, which includes a map captured online, showing a local polling location and urging citizens to vote.
- Use primary sources to produce a wiki or website providing information on the history of the local community.
- Use videoconferencing to make a presentation to students in another state about native cultures indigenous to your state.

### 8th Grade



1. Interpret, organize, and present information from the social sciences in clear and effective formats.

#### E.G.

- Interpret orally a topical political cartoon from abroad, using online sources such as slate.com.
- Compare & contrast cultures by using online discussion formats or videoconferences with students in another country, via an organization like Peace Corps Partnership.
- Research the timeline of events leading up to the Civil War and use primary sources to create an electronic and/or online presentation that displays what you consider to be the most significant of these events, and why.
- Locate digital advertisements that illustrate sexism or stereotyping and create a presentation that explains the ways in which the ads rely on inaccurate representations of demographic groups.
- Write and produce a video or audio podcast public service announcement that promotes student involvement in the student government association.
- Identify and join a listserv to stay informed about an issue of importance to you and/or your community; email your classmates a description of the listserv, along with an explanation of why you selected it and why others might find it interesting and/or useful.

### 12th Grade



1. Analyze, synthesize, organize, and present information from the social sciences in clear and effective formats.

#### E.G.

- Create an electronic presentation that describes and analyzes an issue dealing with aging in American society over several decades (e.g., demographic change, Medicare costs, Social Security). Explain the problem using data (presented in comparative charts where possible), and present some commonly debated ways to address the issue. Via an online discussion board, lead classmates in a discussion about the relative merits of the potential solutions.
- Use Depression era reminiscences from American Memory (Library of Congress website), and choose one to enact as a Reader's Theater piece.
- Create an online photo album of housing patterns in the student's community and use these photos to lead a class discussion on potential growth problems in the student's town.
- Use concept mapping software to make a Venn diagram comparing and contrasting life in Europe before and after the Industrial Revolution.



# Information and Media Literacy

Understand, manage and create effective oral, written and/or multimedia communication in a variety of forms and contexts. Analyze, access, manage, integrate, evaluate and create information in a variety of forms and media.

## 21st Century Tools for Learning & Thinking

### 4th Grade



- Search engines & strategies
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### 8th Grade



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- GIS & GPS tools
- Collaboration tools (wikis, listservs, email, asynchronous conferencing, Chat)
- Blogs (text & video)
- Podcasts

### 12th Grade



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- Blogs (text & video)
- Podcasts

# Information and Media Literacy (continued)

Understand, manage and create effective oral, written and/or multimedia communication in a variety of forms and contexts. Analyze, access, manage, integrate, evaluate and create information in a variety of forms and media.

## 21st Century Tools for Learning & Thinking

### 4th Grade



1. Access information about communities around the world from a variety of media sources.
 

**E.G.** Working in small groups, students select a nation from each continent and use online encyclopedias, electronic databases & other websites to study typical families in those nations. Present findings to the class using presentation software. Create a Venn diagram to compare and contrast two communities from around the world using illustrations or information to demonstrate understanding.
2. Gather original data and create graphs or charts to display the information.
 

**E.G.** Students use an online survey tool to create a survey that collects data about the likes and dislikes of their own families. Students store the data in a spreadsheet and display their findings using the spreadsheet's graphing tools and use digital images to demonstrate their family's preferences of their favorite places to visit within their community and state.
3. Conduct an interview and create a slide show that describes the main points of the discussion.

### 8th Grade



1. Download and store relevant data from the Internet about distinct features of selected nations around the world.
 

**E.G.** Students consult the U.S. Dept. of Energy website to create a spreadsheet and construct a line graph of crude oil prices since the crisis of the early 1970's. They then examine data on selected oil producing & consuming countries from the CIA World Facts database and develop possible explanations for the fluctuations in price.
2. Create original data sets about key issues in the community, state or nation using tools such as an online survey. Create a presentation that displays the data in a spreadsheet or database and analyzes the significance of the data.
 

**E.G.** Students use electronic databases and GIS to gather data regarding gas prices, home heating oil prices, wages, etc. in their city over the past twelve months. Students create an electronic presentation containing the data (in charts, graphs, or maps), and discuss the impact of war in the Middle East on their community.
3. Conduct a visual analysis of digital images (digital photograph libraries, aerial photographs and satellite imagery), other digital primary sources, and digital maps.

### 12th Grade



1. Locate, download, reference and present information using multiple electronic formats, from sources that offer diverse perspectives about local and national governments in different communities.
 

**E.G.** Students will examine local, state and tax rates for commonly used goods, such as milk or bread. Students will research what these taxes are used for.
2. Develop and use a customized search to locate and select multimedia information about a public policy issue of local, national and/or global significance and produce an Internet web page, digital video, podcast, or web page of the findings.
 

**E.G.** Students research multiple viewpoints on possible steps that can be taken to improve working conditions in underdeveloped countries and produce a webquest for other students to use in order to better understand this problem.
3. Download and analyze statistical data.
 

**E.G.** Students conduct visual analysis using U.S. and U.N. census data about population growth to graphically display the impact of transportation systems on urbanization over time.



# Information and Media Literacy (continued)

Understand, manage and create effective oral, written and/or multimedia communication in a variety of forms and contexts. Analyze, access, manage, integrate, evaluate and create information in a variety of forms and media.

## 21st Century Tools for Learning & Thinking (continued)

### 4th Grade



- E.G.** Interview a family member about the changes over time in his/her community. Present the main points that result from the interview in a slide show that integrates video images.
4. Describe the roles and responsibilities of their elected officials.
- E.G.** Students download e-text biographies of their Governor, Senators, and/or Representatives and use a graphic organizer tool to display the roles and responsibilities of each.
5. Use drawing or timeline software tools to create a timeline of events.
- E.G.** Using graphics or presentation software, students create an electronic timeline of events leading up to the writing of the Declaration of Independence.
6. Access the expertise of sources outside their own community.
- E.G.** Students participate in an online discussion or interactive videoconference with a museum educator in order to discuss and analyze an artifact found in the student's local community, drawing conclusions about the item's purpose and probable owner.

### 8th Grade



- E.G.** Students analyze sources of information about transportation systems used over time and draw conclusions about how they are related to changes in population distribution.
4. Locate and select sources, representing several types of media, which discuss an elected official's time in office.
- E.G.** Students create a slideshow or wiki comparing and contrasting the administrations of several of the early American presidents.
5. Use concept mapping software to generate and present characteristics, causes, and effects of political revolutions.
- E.G.** Students map the characteristics of the American Revolution, the French Revolution, the Russian Revolution, and a Latin American revolution.

### 12th Grade



4. Locate and select sources, representing several types of media, which enable one to assess an elected official's effectiveness while in office.
- E.G.** Students compare and contrast the voting records of different state and local officials on issues that impact their community, such as education and taxes, using digital presentation methods (podcast, slideshow, website or blog).
5. Use technology tools to present and analyze data in a meaningful way.
- E.G.** Create a spreadsheet and from it a graph to display comparative prices over a month of three stocks in different sectors (high tech, hospitality, communications, etc.); conduct research online to describe possible reasons for the fluctuations and trends evidenced by the data.



# Creativity and Innovation Skills

# SOCIAL STUDIES

*Demonstrate originality and inventiveness in work. Developing, implementing and communicating new ideas to others. Being open and responsive to new and diverse perspectives.*

## 21st Century Tools for Learning & Thinking



### 4th Grade

- Graphics software (drawing, painting, image editing)
- Web publishing software
- Desktop publishing software (word processing & layout programs)
- Spreadsheet & graphing software
- Database creation software
- Concept mapping/graphic organizers (ex. Inspiration, Timeliner)
- Collaboration tools (wikis, listservs, email, asynchronous conferencing, Chat)
- Presentation tools
- GIS & GPS tools
- CAI software
- Videoconferencing and interactive television
- Production tools (Digital photography & video)
- Blogs



### 8th Grade

- Graphics software (drawing, painting, image editing)
- Web publishing software
- Desktop publishing software (word processing & layout programs)
- Spreadsheet & graphing software
- Database creation software
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- Collaboration tools (wikis, listservs, email, asynchronous conferencing, Chat, MUD, MOO)
- Presentation tools
- GIS & GPS tools
- CAI software
- Videoconferencing and interactive television
- Production tools (Digital photography & video)
- Blogs



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- Production tools (Digital photography & video)
- Blogs

# Creativity and Innovation Skills (continued)

*Demonstrate originality and inventiveness in work. Developing, implementing and communicating new ideas to others. Being open and responsive to new and diverse perspectives.*

## 21st Century Tools for Learning & Thinking

### 4th Grade



Demonstrate creativity and share new ideas and perspectives by incorporating work in the social sciences with technology, to invent products such as plays, games, dances, puzzles, models, writings, speeches, etc.

#### E.G.

1. Using electronic drawing tools, re-design the student's state flag, using information from the state's history, geography, arts and/or culture.
2. Write clues about colonial times into an electronic crossword puzzle program.
3. Take digital photographs of political signs in your neighborhood and use a graphics program to create a digital election collage.
4. Using desktop publishing software create a newsletter highlighting this month's classroom activities, such as units studied, field trips, special events, etc.
5. Maintain a wiki, for youngsters, by youngsters, for sharing opinions about global problems.
6. Participate in asynchronous discussion with peers in both Israel and in Lebanon to better understand issues in that part of the world.
7. Create a speech representing one side of a cultural or religious belief.

### 8th Grade



Demonstrate creativity and share new ideas and perspectives by incorporating work in the social sciences with technology, to invent products such as plays, games, dances, songs, puzzles, models, writings, speeches, etc.

#### E.G.

1. Invent a Smart Board game modeled on "Chutes and Ladders" to illustrate progress and backsliding in the search for peace in the Middle East.
2. Compose and word process in broadside format an additional Federalist paper by "Publius," using references to the real Federalist papers.
3. Write, enact, and film a digital commercial for either Jefferson or Adams in the election of 1800, as though there had been television two hundred years ago.
4. Compose and record an original Civil War ballad based on the one reproduced online in Harper's Weekly, edition of August 17, 1861. Make the recording available for download.

### 12th Grade



Demonstrate creativity and share new ideas and perspectives by incorporating work in the social sciences with technology, to invent products such as plays, games, dances, songs, puzzles, models, writings, speeches, etc.

#### E.G.

1. Study FDR's Fireside Chats, and then script and record one of your own which follows the last of the real ones (June 12, 1944, about a war loan drive), for any date between June 12th of 1944 and April 12th, 1945, when Roosevelt died. Make the recording available for download.
2. Construct a circle graph depicting what a single tax dollar buys. Make it the centerpiece of a digital poster you create for this year's Congressional election.
3. Create an online poll consisting of questions on current issues (the war on terrorism, the invasion of Iraq, immigration, etc.). Solicit 50 classmates to complete the poll online, then summarize and publish conclusions using presentation software.
4. With cooperation from your local government or school, organize a listserv that will keep citizens and/or students abreast of community issues.
5. Using GPS and GIS, map in your community hazardous locations of why certain businesses (day cares, etc) should not be near other locations (train tracks) etc.



# Collaboration Skills

# SOCIAL STUDIES

*Demonstrate ability to work effectively with diverse teams. Willing to be helpful and make necessary compromises to accomplish a common goal.*

## 21st Century Tools for Learning & Thinking



### 4th Grade

- Web publishing software
- Brainstorming software
- Digital networking tools
- CAI & simulation software
- Videoconferencing and interactive TV
- Authoring software
- Email
- Cellular phones
- Blogs
- Asynchronous discussion boards
- Multimedia production tools
- Online chat
- Wikis
- Listservs
- Real-time videoconferencing



### 8th Grade

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- Wikis
- Listservs
- Real-time videoconferencing



### 12th Grade

- Brainstorming software
- Digital networking tools
- Authoring software
- Email
- Cellular phones
- Blogs
- Asynchronous discussion boards
- Multimedia production tools
- Online chat
- Web publishing and desktop publishing software
- Wikis
- Listservs
- Real-time videoconferencing

# Collaboration Skills (continued)

*Demonstrate ability to work effectively with diverse teams. Willing to be helpful and make necessary compromises to accomplish a common goal.*

## SAMPLE Student Outcomes for Learning & Thinking

### 4th Grade



1. Work together in pairs and small groups in a specified role to plan, investigate, and report the results of their work on a community and/or state political or social issue.

**E.G.** As news reporters for a newspaper/magazine/online journal, students investigate the impact of a state legislative bill mandating the use of helmets while riding a bicycle. They then use graphics software or other electronic drawing tools to illustrate the results of their study and conduct a town meeting where their views must be presented electronically.

2. As a group, work together to reach a decision and to explain the reasons for it.

**E.G.** Students participate in an asynchronous discussion forum about how to respond to the state bill requiring bicycle helmets and develop consensus about what the team will do. Using a word processing program, students author a persuasive letter either for or against the proposed bill, providing sound reasons to support their position.

3. Recognize and compare two or more perspectives on an issue.

### 8th Grade



1. Work together as a group in different roles to plan, investigate and report the results of their work on a state or national political and/or social issue.

**E.G.** Students use multiple resources, especially communications technology, to gain perspectives from peers in other locales, and to develop a blog that details the team's perspective on violence in schools. Student teams then prepare an electronic proposal regarding violence prevention and present this proposal to the school administration.

2. Recognize and communicate diverse perspectives on an issue and demonstrate how diverse perspectives might lead to different interpretations of an issue.

**E.G.** After watching videos of the events surrounding the desegregation of Little Rock Central High School, students read online first-hand accounts, then use online tools to find students in other parts of the country with whom they can discuss and compare interpretations of the events. Students then summarize and reflect on their experiences in small group discussions.

3. Communicate to school or community members about opportunities to assist with a group project.

### 12th Grade



1. Work in groups, taking various roles to plan, investigate and report the results of their study on a national or global political and/or social issue.

**E.G.** Working in groups, conduct online research & create a report on HIV/AIDS in the U.S. and in Africa, using sites such as MTV's Fight for Your Rights and the United Nations' Cyber Schoolbus, and compare the economic, health and social implications of HIV/AIDS in both settings.

2. Reach consensus on a viable action that could be taken relative to a political and/or social issue and then act accordingly.

**E.G.** Working in student teams and using online decision-tree tools, research an issue that is a challenge for the local community and develop consensus around three specific actions the group will take to address the issue (e.g., writing letters to elected representatives, local paper, organizing an email campaign or other activity, etc.). Prepare a summary report of the group's decision-making process and what action steps were taken.

3. Recognize, empathize with, and communicate diverse perspectives on an issue and realize how one's perspective influences one's interpretation of an issue and/or work within a group.





# Collaboration Skills (continued)

*Demonstrate ability to work effectively with diverse teams. Willing to be helpful and make necessary compromises to accomplish a common goal.*

## SAMPLE Student Outcomes for Learning & Thinking (continued)

### 4th Grade



**E.G.** Students select a state, local, or community issue such as recreational use of state property, smoking in restaurants, or skateboarding on sidewalks, and demonstrate their understanding of two or more views by using publishing software to develop a Venn diagram that includes text and images. Conclude by presenting an argument that endorses one of the viewpoints.

4. Working in small groups, encourage and engage other classmates to assist with a group community service project.

**E.G.** Using digital media, students demonstrate the need of a local food or animal shelter to raise the awareness of their classmates on the issue within their community. Students then create a digital poster that persuades classmates to participate in a school fundraising project.

5. Work as a team to assess individual and/or group work.

**E.G.** Using a teacher constructed online rubric, students work in teams to review their personal performance and contributions to their team, as well as overall group performance.

### 8th Grade



**E.G.** Working in teams, students prepare a digital audio recording, a digital brochure and a digital poster and distribute these in order to enlist the community's help with a food drive to benefit the local food pantry.

4. Assess their performance as a group and develop and implement a plan to work together more productively.

**E.G.** Students use a wiki or asynchronous discussion board to reflect on a recent group activity, discussing both strengths and weaknesses of their team's interaction and productivity.

### 12th Grade



**E.G.** Conduct an online survey among community members about the effects of a recent influx of immigrants and compare responses with digitized accounts from other communities nationwide. Then work in groups to present two opposing viewpoints on the issue, analyzing the merits of each perspective.

4. Engage other students, community members and/or other relevant parties to assist with a group effort.

**E.G.** Host an online chat, present a podcast and use a discussion board or listserv to involve community members in an online debate on global warming.

5. Assess their performance as a group and develop and implement a plan to work together more productively.

**E.G.** Create and operate a blog that documents the group's process, work with the teacher to review the online account, and post a recommended improvement plan for the next project.

