

Grade 5

Project Citizen Steps Correlation to Tennessee State Standards in Social Studies, Science, English/Language Arts, and Mathematics

Grade 5: Social Studies/Governance and Civics

4.0 Governance establishes structures of power and authority in order to provide order and stability. Civic efficacy requires understanding rights and responsibilities, ethical behavior, and the role of citizens within their community, nation, and world.

Era 5: Civil War and Reconstruction (1850-1877)		
Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Standards for Civics & Government
<p>Step 1 Identifying Public Policy Problems in Your Community Part A Class Discussion p.10 - 11</p> <p>Part B Small Group Activity p.11</p> <p>Step 2 Selecting a Problem for Class Study p. 17</p> <p>Step 3 Gathering Information and Research p. 18 – 27</p> <p>Step 4 Developing a Class Portfolio p. 28 – 49</p> <p>Step 5 Presenting Your Portfolio p. 50 – 52</p> <p>Step 6 Reflecting on Your Learning Experience p. 53 - 55</p>	<p>5.4.1 distinguish between the local, state, and federal levels of the legislative, executive, and judicial branches of the American government</p> <p>5.4.3 recognize the rights established by the 13th, 14th, 15th, and 19th amendments</p> <p>5.5.7 interpret a primary reading sample</p> <p>5.6.3 recognize situations requiring conflict resolution</p>	<p><i>NSS-C.5-8.1 Civic Life, Politics And Government</i> What are Civic Life, Politics, and Government?</p> <p>* What are alternative ways of organizing constitutional governments?</p> <p><i>NSS-C.5-8.2 Foundations Of The Political System</i> What are the Foundations of the American Political System?</p> <p>*What is the American idea of constitutional government? *What are the distinctive characteristics of American society? *What is American political culture? *What values and principles are basic to American constitutional democracy?</p> <p><i>NSS-C.5-8.3 Principles Of Democracy</i> How Does the Government Established by the Constitution Embody the Purposes, Values, and Principles of American Democracy?</p> <p>*How are power and responsibility distributed, shared, and limited in the government established by the United States Constitution? *What does the national government do?</p>

Sample Classroom Applications	Sample Resources
<p>Read the first and final paragraph of “The Gettysburg Address,” and write a short summary of how Lincoln’s description of American government remains true today.</p> <p>Complete a cause and effect graphic organizer for the 13th, 14th, and 15th amendments.</p>	<p>Internet</p> <p>http://ofcn.org/cyber.serv/academy/ace/soc/elem.html Academy Curricular Exchange Social Studies Elementary School (K-5) 50 civics lesson plans</p> <p>http://www.history.ctaponline.org/center/ Model lessons K-6</p> <p>http://www.civiced.org/index.php?page=lesson_plans Center for Civic Education lesson plans</p> <p>http://civics-online.org/ Website for teachers and others with lesson plans</p> <p>http://www.ccle.fourh.umn.edu/Elementary.htm Elementary Lessons from CRADLE</p> <p>http://www.tnhistoryforkids.org/civics/e Tennessee History for Kids website</p> <p>Video</p> <p>www.americanpromise.com Promoting Citizenship through Literacy – PBS series and lesson plans</p>

Grade 5: Social Studies/Governance and Civics

Era 6: The Development of the Industrial United States		
Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Standards for Civics & Government
<p>Step 1 Identifying Public Policy Problems in Your Community Part A Class Discussion p.10 - 11</p> <p>Part B Small Group Activity p.11</p> <p>Step 2 Selecting a Problem for Class Study p. 17</p> <p>Step 3 Gathering Information and Research p. 18 – 27</p> <p>Step 4 Developing a Class Portfolio p. 28 – 49</p> <p>Step 5 Presenting Your Portfolio p. 50 – 52</p> <p>Step 6 Reflecting on Your Learning Experience p. 53 - 55</p>	<p>5.4.2 select examples using illustrations of First Amendment freedoms</p> <p>5.5.4 recognize the rights that workers fought for in the late 1800’s</p> <p>5.5.7 interpret a primary reading sample</p> <p>5.6.2 use tools of social science inquiry such as surveys, statistics, maps, and documents</p>	<p><i>NSS-C.5-8.3 Principles Of Democracy</i> How Does the Government Established by the Constitution Embody the Purposes, Values, and Principles of American Democracy?</p> <p>*How are power and responsibility distributed, shared, and limited in the government established by the United States Constitution? *What does the national government do? *How are state and local governments organized and what do they do? *Who represents you in local, state, and national governments? *What is the place of law in the American constitutional system? *How does the American political system provide for choice and opportunities for participation?</p> <p><i>NSS-C.5-8.5 Roles Of The Citizen</i> What are the Roles of the Citizen in American Democracy?</p> <p>*What is citizenship? *What are the rights of citizens? *What are the responsibilities of citizens?</p>

Sample Classroom Applications	Sample Resources
<p>Run a survey in the school and/or neighborhood of adults who are members of unions.</p> <p>Read a short excerpt from a sweatshop worker's journal from the turn of the century. Make a list of similarities and differences between the working conditions and treatment of workers then and now.</p>	<p>Internet</p> <p>http://ofcn.org/cyber.serv/academy/ace/soc/elem.html Academy Curricular Exchange Social Studies Elementary School (K-5) 50 civics lesson plans</p> <p>http://www.history.ctaponline.org/center/ Model lessons K-6</p> <p>http://www.civiced.org/index.php?page=lesson_plans Center for Civic Education lesson plans</p> <p>http://civics-online.org/ Website for teachers and others with lesson plans</p> <p>http://www.ccle.fourh.umn.edu/Elementary.htm Elementary Lessons from CRADLE</p> <p>http://www.tnhistoryforkids.org/civics/e Tennessee History for Kids website</p> <p>Video</p> <p>www.americanpromise.com Promoting Citizenship through Literacy – PBS series and lesson plans</p>

Grade 5: Social Studies/Governance and Civics

Era 7: The Emergence of Modern America (1890-1930)		
Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Standards for Civics & Government
<p>Step 1 Identifying Public Policy Problems in Your Community Part A Class Discussion p.10 - 11</p> <p>Part B Small Group Activity p. 11</p> <p>Step 2 Selecting a Problem for Class Study p. 17</p> <p>Step 3 Gathering Information and Research p. 18 – 27</p> <p>Step 4 Developing a Class Portfolio p. 28 – 49</p> <p>Step 5 Presenting Your Portfolio p. 50 – 52</p> <p>Step 6 Reflecting on Your Learning Experience p. 53 - 55</p>	<p>5.2.3 recognize the concept of buying on credit</p> <p>5.2.4 interpret economic issues as expressed in maps, tables, diagrams, and charts</p> <p>5.4.3 recognize the rights established by the 13th, 14th, 15th, and 19th amendments</p> <p>5.5.7 interpret a primary reading sample</p> <p>5.6.2 use tools of social science inquiry such as surveys, statistics, maps, and documents</p>	<p><i>NSS-C.5-8.2 Foundations Of The Political System</i> What are the Foundations of the American Political System?</p> <ul style="list-style-type: none"> * What are the distinctive characteristics of American society? * What is American political culture? * What values and principles are basic to American constitutional democracy? <p><i>NSS-C.5-8.3 Principles Of Democracy</i> How Does the Government Established by the Constitution Embody the Purposes, Values, and Principles of American Democracy?</p> <ul style="list-style-type: none"> * How are power and responsibility distributed, shared, and limited in the government established by the United States Constitution? * What does the national government do? * How are state and local governments organized and what do they do? * Who represents you in local, state, and national governments? * What is the place of law in the American constitutional system? * How does the American political system provide for choice and opportunities for participation? <p><i>NSS-C.5-8.5 Roles Of The Citizen</i> What are the Roles of the Citizen in American Democracy?</p> <ul style="list-style-type: none"> * What is citizenship? * What are the rights of citizens? * What are the responsibilities of citizens? * What dispositions or traits of character are important to the preservation and improvement of American constitutional democracy?

Sample Classroom Applications	Sample Resources
<p>Offer students a graph that shows the number of women voting in national elections since 1920. Have them discuss the impact of the 19th amendment over time.</p> <p>Examine a political cartoon that shows Theodore Roosevelt “busting trusts.” Have students write in their own words what a monopoly is and modern examples of monopolies (e.g., Microsoft).</p> <p>Offer students a primary source excerpt from Jane Addams’ Hull House documents. Students should list the types of people Hull House was designed to assist. Then students should list the current government agencies that provide that kind of assistance.</p>	<p>Internet http://ofcn.org/cyber.serv/academy/ace/soc/elem.html Academy Curricular Exchange Social Studies Elementary School (K-5) 50 civics lesson plans</p> <p>http://www.history.ctaponline.org/center/ Model lessons K-6</p> <p>http://www.civiced.org/index.php?page=lesson_plans Center for Civic Education lesson plans</p> <p>http://civics-online.org/ Website for teachers and others with lesson plans</p> <p>http://www.ccle.fourh.umn.edu/Elementary.htm Elementary Lessons from CRADLE</p> <p>http://www.tnhistoryforkids.org/civics/e Tennessee History for Kids website</p> <p>Video www.americanpromise.com Promoting Citizenship through Literacy – PBS series and lesson plans</p>

Grade 5: Social Studies/Governance and Civics

Era 8: The Great Depression and World War II (1929-1945)		
Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Standards for Civics & Government
<p>Step 1 Identifying Public Policy Problems in Your Community Part A Class Discussion p.10 - 11</p> <p>Part B Small Group Activity p. 11</p> <p>Step 2 Selecting a Problem for Class Study p. 17</p> <p>Step 3 Gathering Information and Research p. 18 – 27</p> <p>Step 4 Developing a Class Portfolio p. 28 – 49</p> <p>Step 5 Presenting Your Portfolio p. 50 – 52</p> <p>Step 6 Reflecting on Your Learning Experience p. 53 - 55</p>	<p>5.2.2 differentiate between an economic boom and bust</p> <p>5.2.3 recognize the concept of buying on credit</p> <p>5.2.4 interpret economic issues as expressed with maps, tables, diagrams, and charts</p> <p>5.2.5 analyze how environmental changes and crisis affected the economy across the nation in the 1930s</p> <p>5.5.7 interpret a primary reading sample</p> <p>5.6.1 recognize people who contributed to reform in Tennessee and in American society</p> <p>5.6.2 use tools of social science inquiry such as surveys, statistics, maps, and documents</p> <p>5.6.3 recognize situations requiring conflict resolution</p>	<p><i>NSS-C.5-8.1 Civic Life, Politics And Government</i> What are Civic Life, Politics, and Government?</p> <ul style="list-style-type: none"> * What is civic life? What is politics? What is government? Why are government and politics necessary? What purposes should government serve? * What are the essential characteristics of limited and unlimited government? * What are the nature and purposes of constitutions? <p><i>NSS-C.5-8.2 Foundations Of The Political System</i> What are the Foundations of the American Political System?</p> <ul style="list-style-type: none"> * What is the American idea of constitutional government? * What are the distinctive characteristics of American society? * What is American political culture? * What values and principles are basic to American constitutional democracy? <p><i>NSS-C.5-8.3 Principles Of Democracy</i> How Does the Government Established by the Constitution Embody the Purposes, Values, and Principles of American Democracy?</p> <ul style="list-style-type: none"> * How are power and responsibility distributed, shared, and limited in the government established by the United States Constitution? * What does the national government do? * How are state and local governments organized and what do they do? * Who represents you in local, state, and national governments?

Sample Classroom Applications	Sample Resources
<p>Offer students a chart that shows the explosive growth of credit buying during the 1920s. Have them predict the consequences of the trend.</p> <p>Complete a chart that shows the main New Deal agencies and their purpose.</p> <p>Make a chart of the characteristics of fascism, communism, totalitarianism, and democracy. List the nations involved in World War II by the type of government they have (had).</p>	<p>Internet http://ofcn.org/cyber.serv/academy/ace/soc/elem.html Academy Curricular Exchange Social Studies Elementary School (K-5) 50 civics lesson plans</p> <p>http://www.history.ctaponline.org/center/ Model lessons K-6</p> <p>http://www.civiced.org/index.php?page=lesson_plans Center for Civic Education lesson plans</p> <p>http://civics-online.org/ Website for teachers and others with lesson plans</p> <p>http://www.ccle.fourh.umn.edu/Elementary.htm Elementary Lessons from CRADLE</p> <p>http://www.tnhistoryforkids.org/civics/e Tennessee History for Kids website</p> <p>Video www.americanpromise.com Promoting Citizenship through Literacy – PBS series and lesson plans</p>

Grade 5: Social Studies / Governance and Civics

Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Standards for Civics & Government
		<ul style="list-style-type: none"> * What is the place of law in the American constitutional system? * How does the American political system provide for choice and opportunities for participation? <p><i>NSS-C.5-8.4 Other Nations And World Affairs</i> What is the Relationship of the United States to Other Nations and to World Affairs?</p> <ul style="list-style-type: none"> * How is the world organized politically? * How has the United States influenced other nations and how have other nations influenced American politics and society? <p><i>NSS-C.5-8.5 Roles Of The Citizen</i> What are the Roles of the Citizen in American Democracy?</p> <ul style="list-style-type: none"> * What is citizenship? * What are the rights of citizens? * What are the responsibilities of citizens? * What dispositions or traits of character are important to the preservation and improvement of American constitutional democracy? * How can citizens take part in civic life?

Grade 5: Social Studies/Governance and Civics

Era 9: Post-War United States (1945 – 1970’s)		
Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Standards for Civics & Government
<p>Step 1 Identifying Public Policy Problems in Your Community Part A Class Discussion p.10 - 11</p> <p>Part B Small Group Activity p. 11</p> <p>Step 2 Selecting a Problem for Class Study p. 17</p> <p>Step 3 Gathering Information and Research p. 18 – 27</p> <p>Step 4 Developing a Class Portfolio p. 28 – 49</p> <p>Step 5 Presenting Your Portfolio p. 50 – 52</p> <p>Step 6 Reflecting on Your Learning Experience p. 53 - 55</p>	<p>5.1.1 recognize components of American culture</p> <p>5.4.2 select examples using illustrations of First Amendment freedoms</p> <p>5.5.7 interpret a primary reading sample</p> <p>5.5.8 recognize examples of how the United States confronted Civil Rights issues</p> <p>5.6.2 use tools of social science inquiry such as surveys, statistics, maps, and documents</p>	<p><i>NSS-C.5-8.2 Foundations Of The Political System</i> What are the Foundations of the American Political System?</p> <ul style="list-style-type: none"> * What is the American idea of constitutional government? * What are the distinctive characteristics of American society? * What is American political culture? * What values and principles are basic to American constitutional democracy? <p><i>NSS-C.5-8.3 Principles Of Democracy</i> How Does the Government Established by the Constitution Embody the Purposes, Values, and Principles of American Democracy?</p> <ul style="list-style-type: none"> * How are power and responsibility distributed, shared, and limited in the government established by the United States Constitution? * What does the national government do? * How are state and local governments organized and what do they do? * Who represents you in local, state, and national governments? * What is the place of law in the American constitutional system? * How does the American political system provide for choice and opportunities for participation? <p><i>NSS-C.5-8.4 Other Nations And World Affairs</i> What is the Relationship of the United States to Other Nations and to World Affairs?</p> <ul style="list-style-type: none"> * How is the world organized politically?

Sample Classroom Applications	Sample Resources
<p>Explain the concept of the “Red Scare.” Have students list the freedoms from the Bill of Rights that were violated or infringed upon during this time period.</p> <p>Offer students an excerpt from MLK, Jr’s “I Have a Dream” speech. Give them two options: (1) memorize and recite (with feeling) the passage in front of the class; (2) paraphrase the passage in language for their classmates.</p> <p>Arrange with the librarian to pull books of fiction or autobiographies about famous figures of the civil rights movement or about events during the civil rights period. Students should choose one to read and present either an oral or written report to the class.</p> <p>Take the most famous sentence from JFK’s inaugural address – “Ask not what your country can do for you; ask what you can do for your country” – and have students make a T chart. On one side they should list what their country does for them. On the other side they should list what good citizens should do for their country.</p>	<p>Internet</p> <p>http://ofcn.org/cyber.serv/academy/ace/soc/elem.html Academy Curricular Exchange Social Studies Elementary School (K-5) 50 civics lesson plans</p> <p>http://www.history.ctaponline.org/center/ Model lessons K-6</p> <p>http://www.civiced.org/index.php?page=lesson_plans Center for Civic Education lesson plans</p> <p>http://civics-online.org/ Website for teachers and others with lesson plans</p> <p>http://www.ccle.fourh.umn.edu/Elementary.htm Elementary Lessons from CRADLE</p> <p>http://www.tnhistoryforkids.org/civics/e Tennessee History for Kids website</p> <p>Video</p> <p>www.americanpromise.com Promoting Citizenship through Literacy – PBS series and lesson plans</p>

Grade 5: Social Studies / Governance and Civics

Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Standards for Civics & Government
		<p>* How has the United States influenced other nations and how have other nations influenced American politics and society?</p> <p><i>NSS-C.5-8.5 Roles Of The Citizen</i> What are the Roles of the Citizen in American Democracy?</p> <ul style="list-style-type: none"> * What is citizenship? * What are the rights of citizens? * What are the responsibilities of citizens? * What dispositions or traits of character are important to the preservation and improvement of American constitutional democracy? * How can citizens take part in civic life?


Sample Classroom Applications	Sample Resources	

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Grade 5: Social Studies/Governance and Civics

Era 10: Contemporary United States (1968 to the present)

Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Standards for Civics & Government
<p>Step 1 Identifying Public Policy Problems in Your Community Part A Class Discussion p.10 - 11</p> <p>Part B Small Group Activity p. 11</p> <p>Step 2 Selecting a Problem for Class Study p. 17</p> <p>Step 3 Gathering Information and Research p. 18 – 27</p> <p>Step 4 Developing a Class Portfolio p. 28 – 49</p> <p>Step 5 Presenting Your Portfolio p. 50 – 52</p> <p>Step 6 Reflecting on Your Learning Experience p. 53 - 55</p>	<p>5.1.2 interpret how culture changes over time as a consequence of industrialization, technology, or cultural diffusion</p> <p>5.2.4 interpret economic issues as expressed with maps, tables, diagrams, and charts</p> <p>5.4.2 select examples using illustrations of First Amendment freedoms</p> <p>5.5.7 interpret a primary reading sample</p> <p>5.5.8 recognize examples of how the United States confronted Civil Rights issues</p> <p>5.6.2 use tools of social science inquiry such as surveys, statistics, maps, and documents</p>	<p><i>NSS-C.5-8.1 Civic Life, Politics And Government</i> What are Civic Life, Politics, and Government?</p> <ul style="list-style-type: none"> * What is civic life? What is politics? What is government? Why are government and politics necessary? What purposes should government serve? * What are the essential characteristics of limited and unlimited government? * What are the nature and purposes of constitutions? * What are alternative ways of organizing constitutional governments? <p><i>NSS-C.5-8.2 Foundations Of The Political System</i> What are the Foundations of the American Political System?</p> <ul style="list-style-type: none"> * What is the American idea of constitutional government? * What are the distinctive characteristics of American society? * What is American political culture? * What values and principles are basic to American constitutional democracy? <p><i>NSS-C.5-8.3 Principles Of Democracy</i> How Does the Government Established by the Constitution Embody the Purposes, Values, and Principles of American Democracy?</p> <ul style="list-style-type: none"> * How are power and responsibility distributed, shared, and limited in the government established by the United States Constitution? * What does the national government do?

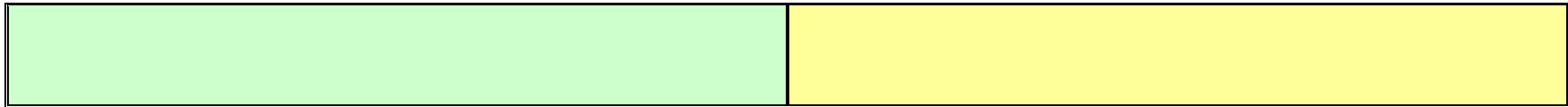
		<p>* How are state and local governments organized and what do they do? </p>
<p align="center">Sample Classroom Applications</p>		<p align="center">Sample Resources</p>
<p>Make a T chart of contributions of immigrant groups since the 1970s and problems caused by increasing immigrant numbers since the 1970s.</p> <p>Examine a map that shows electoral votes per state in 1970 and a map that shows electoral votes per state today. Have students write a short analysis covering at least 3 reasons that some states have increased in population since 1970 and why some have lost population.</p> <p>Set up an electoral graph or map of the election of 2000. Discuss the difference between the popular vote and the electoral vote. Have students research both sides of the debate about amending the Constitution to abolish the electoral college. Students can then participate in a mini-debate on the topic.</p>	<p>Internet http://ofcn.org/cyber.serv/academy/ace/soc/elem.html Academy Curricular Exchange Social Studies Elementary School (K-5) 50 civics lesson plans</p> <p>http://www.history.ctaponline.org/center/ Model lessons K-6</p> <p>http://www.civiced.org/index.php?page=lesson_plans Center for Civic Education lesson plans</p> <p>http://civics-online.org/ Website for teachers and others with lesson plans</p> <p>http://www.ccle.fourh.umn.edu/Elementary.htm Elementary Lessons from CRADLE</p> <p>http://www.tnhistoryforkids.org/civics/e Tennessee History for Kids website</p> <p>Video www.americanpromise.com Promoting Citizenship through Literacy – PBS series and lesson plans</p>	

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Grade 5: Social Studies / Governance and Civics

Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Standards For Civics & Government
		<ul style="list-style-type: none"> * Who represents you in local, state, and national governments? * What is the place of law in the American constitutional system? * How does the American political system provide for choice and opportunities for participation? <p><i>NSS-C.5-8.4 Other Nations And World Affairs</i> What is the Relationship of the United States to Other Nations and to World Affairs?</p> <ul style="list-style-type: none"> * How is the world organized politically? * How has the United States influenced other nations and how have other nations influenced American politics and society? <p><i>NSS-C.5-8.5 Roles Of The Citizen</i> What are the Roles of the Citizen in American Democracy?</p> <ul style="list-style-type: none"> * What is citizenship? * What are the rights of citizens? * What are the responsibilities of citizens? * What dispositions or traits of character are important to the preservation and improvement of American constitutional democracy? * How can citizens take part in civic life?

Sample Classroom Applications	Sample Resources	



Grade 5: Science

Project Citizen Steps 2008 edition	2009 Subject Area Standards TN State Performance Indicators (GLE/SPI)*		National Science Education Standards
Step 1 Identifying Public Policy Problems in Your Community p. 10-16	GLE 0507.Inq.1 GLE 0507.Inq.2 GLE 0507.T/E.1 GLE 0507.T/E.2 GLE 0507.T/E.3 GLE 0507.T/E.5	SPI 0507.Inq.1 SPI 0507.T/E.1	<p>CONTENT STANDARD A: As a result of activities in grades 5-8, all students should develop</p> <ul style="list-style-type: none"> • Abilities necessary to do scientific inquiry • Understandings about scientific inquiry
Step 2 Selecting a Problem for Class Study p. 17	GLE 0507.Inq.4 GLE 0507.Inq.5	SPI 0507.Inq.1	
Step 3 Gathering Information on the Problem Your Class Will Study p. 18-27	GLE 0507.Inq.2 GLE 0507.Inq.4 GLE 0507.T/E.3 GLE 0507.T/E.5	SPI 0507.T/E.1	<p>CONTENT STANDARD E: As a result of activities in grades 5-8, all students should develop</p> <ul style="list-style-type: none"> • Abilities of technological design • Understandings about science and technology
Step 4 Developing a Class Portfolio p. 28-49	GLE 0507.Inq.1 GLE 0507.Inq.3 GLE 0507.Inq.4 GLE 0507.Inq.5 GLE 0507.T/E.5	SPI 0507.Inq.	<p>CONTENT STANDARD F: As a result of activities in grades 5-8, all students should develop understanding of</p> <ul style="list-style-type: none"> • Personal health • Populations, resources, and environments • Natural hazards • Risks and benefits • Science and technology in society
Step 5 Presenting Your Portfolio p. 50-52	GLE 0507.Inq.5		
Step 6 Reflecting on Your Learning Experience p. 53-55	GLE 0507.Inq.5		<p>CONTENT STANDARD G: As a result of activities in grades 5-8, all</p>

	*legend for GLEs and SPIs ↗		students should develop understanding of <ul style="list-style-type: none"> • Science as a human endeavor • Nature of science • History of science
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Sample Classroom Applications	Sample Resources
<p>An example for GLE 0507.2.3 Observe and/or brainstorm what humans are doing that may be impacting the community. Ask questions about how the human activity may be affecting the community. Decide on a question to investigate. Predict, plan an investigation, and record data in an appropriate format. Communicate findings and share individual interpretations.</p> <p>An example for GLE 0507.9.3 Students are curious as to which material used on the roads will melt ice faster or prevent roads from icing. Ask questions about materials effectiveness in melting ice or preventing roads from icing. Decide on a question to investigate. Predict, plan an investigation, and record data in an appropriate format. Communicate findings and share individual interpretations.</p> <p>Investigate the effects of the materials used on the roads on vehicles and the roadside environment.</p> <p>An example for GLE 0507.10.2 Ask questions about the difference in temperatures among different surfaces, such as pavement, grass, and concrete. Decide on a question to investigate. Predict, plan an investigation, and record data in an appropriate format. Communicate findings and share individual interpretations.</p>	<p>Print <i>Project Wet Curriculum and Activity Guide</i> or www.projectwet.org A collection of activities designed to address water from all angles to teach students the importance of water and its impact on society</p> <p><i>Project Wild Curriculum and Activity Guide</i> or www.projectwild.org A collection of activities designed to address conservation and environmental issues as they apply to wildlife</p> <p><i>AIMS Activities, Our Wonderful World</i> Publication with hands-on activities that integrate science, mathematics, language arts, and social studies</p> <p><i>AIMS Activities, Down to Earth</i> Publication with hands-on activities that integrate science, mathematics, language arts, and social studies</p> <p>Internet PBL (Problem-based Learning) Framework www.cotf.edu/ete/teacher/teacherout.html Contains frameworks for problem-based learning</p> <p>Enchanted Learning http://www.Enchantedlearning.com Contains activities, worksheets, clipart, illustrations, and other relevant materials</p> <p>Internet4Classroom http://www.Internet4classrooms.com Contains activities that support Tennessee Curriculum Standards for grades K-12</p> <p>Access Excellence http://www.accessexcellence.org</p>

	<p>Contains activities, such as, mysteries to solve, graphics, resources center, links to biology sites</p> <p>Nova Online http://www.pbs.org/wgbh/nova Contains activities, simulations and resources that are extensions from PBS publications</p>
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Grade 5: Science

Project Citizen Steps 2008 edition	*Science GLE/SPI Legend	National Science Education Standards
	<p>GRADE LEVEL EXPECTATIONS GLE 0507.Inq.1 Explore different scientific phenomena by asking questions, making logical predictions, planning investigations and recording data. GLE 0507.Inq.2 Select and use appropriate tools and simple equipment to conduct an investigation. GLE 0507.Inq.3 Organize data into appropriate tables, graphs, drawings, or diagrams. GLE 0507.Inq.4 Identify and interpret simple patterns of evidence to communicate the findings of multiple investigations. GLE 0507.Inq.5 Recognize that people may interpret the same results in different ways. GLE 0507.T/E.1 Describe how tools, technology, and inventions help to answer questions and solve problems. GLE 0507.T/E.2 Recognize that new tools, technology, and inventions are always being developed. GLE 0507.T/E.3 Identify appropriate materials, tools, and machines that can extend or enhance the ability to solve a specified problem.</p> <p>STATE PERFORMANCE INDICATORS SPI 0507.Inq.1 Select an investigation that could be used to answer a specific question SPI 0507.T/E.1 Select a tool, technology, or invention that was used to solve a human problem.</p>	

Sample Classroom Applications	Sample Resources	
	<p>Tennessee Valley Authority http://www.tva.gov Contains information on environmental issues specific to TVA watersheds</p> <p>U.S. Geological Survey www.usgs.gov Provides information that focuses on biology, geology, geography, geospatial information, and water</p> <p>U.S. Environmental Protection Agency www.epa.gov Federal website devoted to environmental issues</p> <p>Tennessee Department of Environment and Conservation www.state.tn.us/environment State website devoted to environmental and conservation issues</p> <p>Other Local Building Codes County Solid Waste Board Local Tennessee Forestry Division U.S. Local Natural Resources Conservation Service Area Office Tennessee Department of Natural Resources County Agriculture Extension Office Tennessee Wildlife Resource Agency (TWRA)</p>	

Project Citizen Steps 2008 edition	2009 Subject Area Standards TN Grade Level Indicators(GLE)	National Standards for English/Language Arts http://www.ncte.org/about/over/standards/110846.htm
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Grade 5: Language Arts

<p>Introduction p. 1 - 9 Part A Class Discussion: Defining Public Policy p. 4 - 5</p>	<p>GLE 0501.6.1: Apply appropriate skills and strategies to comprehend informational text. Set a purpose for reading (e.g. to understand)</p>	<p><i>See appendix for complete text of the National Standards items. Information below represents main idea of the related standards.</i></p> <p>1. Print and non-print texts</p> <p>3. Comprehend, interpret, evaluate, appreciate texts</p>
	<p>GLE 0501.2.1 Continue to develop oral language skills necessary for communication.</p>	<p>12. Spoken, written, visual language</p>
	<p>GLE 0501.2.2 Continue to develop listening skills necessary for communication</p>	<p>4. Audience and purposes</p>
<p>Step 1 Identifying Public Policy Problems in Your Community p. 10 - 16</p> <p>Discuss, brainstorm, list, interview, research-evaluate, synthesize, and interpret information from a variety of sources, question and answer strategies, use a variety of print resources</p>	<p>GLE 0501.2.1 Continue to develop oral language skills necessary for communication GLE 0501.2.2 Continue to develop listening skills necessary for communication GLE 0501.2.4 Formulate and respond to questions from teachers and group members.</p>	<p>1. Print and non-print texts</p> <p>3. Comprehend, interpret, evaluate, appreciate texts</p> <p>4. Audience and purposes</p> <p>7. Research by generating ideas, questions, problems</p> <p>8. Technological and information resources</p> <p>12. Spoken, written, visual language</p>
<p>Define and narrow a topic for research Use current technology as a research and communication tool.</p>	<p>GLE 0501.4.1: Conduct research to access and present information</p>	<p>1. Print and non-print texts</p> <p>3. Comprehend, interpret, evaluate, appreciate texts</p> <p>4. Audience and purposes</p> <p>7. Research by generating ideas, questions, problems</p> <p>8. Technological and information resources</p> <p>12. Spoken, written, visual language</p>

Sample Classroom Applications	Sample Resources
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<p>Introduction: Public Policy Applications A. Class Discussion p. 4 – 5 Defining Public Policy - Discussion Analyze Public Policy- Newspaper Evaluate Public Policy issues-What is or is not public Policy? Analyze responsibilities and ways citizens participate in public policy issues.</p>	<p>Project Citizen book: Class Discussion and Activities Pages 4-9</p>
<p>5th Grade Social Studies classes study about procedures, public policy, and other issues related to federal, state, and local governments.</p> <p>Literary discussions- teaching public policy- What is the responsibility of government as it relates to each Nursery Rhyme.</p> <p>Evaluate Nursery Rhymes (Humpty Dumpty; Baa, Baa Black Sheep; Itsy Bitsy Spider; Jack and Jill; Little Miss Muffet; Little Bo Peep; Three Blind Mice; The Woman Who Lived in a Shoe; Peter, Peter, Pumpkin Eater; London Bridge is Falling Down)</p> <p>Children’s Books- “The Big Orange Splot” Teach public policy through literature. Dr. Seuss Books- inferred themes about public policy issues.</p> <p>Small group or whole group discuss/ complete graphic organizer/ evaluate nursery rhymes or children’s literature to find inferred public policy issues.</p>	<p>Nursery Rhymes, Children’s Literature (Humpty Dumpty; Baa, Baa Black Sheep; Itsy Bitsy Spider; Jack and Jill; Little Miss Muffet; Little Bo Peep; Three Blind Mice; The Woman Who Lived in a Shoe; Peter, Peter, Pumpkin Eater; London Bridge is Falling Down) Children’s Books- “The Big Orange Splot” by: DANIEL MANUS PINKWATER http://www.ereaders.scps.k12.fl.us/lessonplans/orangesplotlesson.htm Dr. Seuss books <i>Lorax</i>, <i>Sneeches</i>, <i>Butter Battle Book</i>, <i>Yertle the Turtle</i>, etc. (Dr. Seuss books contain inferred themes about public policy issues)</p>
<p>Journal Writing prompts related to public policy. Using quotes to prompt writing.</p>	<p>Website of quotes that can be used as journal writing prompts http://teachers.net/lessons/posts/1860.html</p>
<p>Evaluate/ Analyze public policy by taking field Trip to a public meeting or inviting an elected official to speak to the class List by taking notes of proceedings or information speaker presents Write a summary of what you see Create a sequence chart or story board of proceedings of the meeting.</p>	<p>Attend a School Board, County Commission, City Council meeting or invite a guest speaker from one of the above groups to speak to the class</p>
<p>Step 1 Identifying Public Policy Problems in Your Community p. 10 - 16 Practice small group cooperative learning, discussion, conducting an interview, analyzing intensity of problem, evaluating printed sources.</p>	<p>Project Citizen book: pages 10-16 Class discussion and activities A,B, C</p>
<p>Research important historical issues using technology, books, primary resources, and interview process to make sense of past events and to determine how they relate to today.</p>	<p>Computer internet, books on historical topics, newspapers, letters, and interviews with government officials and historians. Cooperative Groups: 3-2-1 Strategy for Reading Informational Texts TCCL NB pgs: 51-52 CD pgs: 53-54</p>

Grade 5: Language Arts

Sample Classroom Applications		Sample Resources
Project Citizen Steps 2008 edition	2009 Subject Area Standards TN Grade Level Indicators(GLE)	National Standards for English/Language Arts http://www.ncte.org/about/over/standards/110846.htm
<p>Step 2 Selecting a Problem for Class Study p. 17</p> <p>Identify purpose for writing- to inform Select the best title for a written selection Develop and write a paragraph topic sentence with supporting details</p>	<p>GLE 0501.3.3 Know and apply the steps of the writing process GLE 0501.3.11 Compose and respond in writing to original questions and/or problems from all content areas.</p>	<p>11. Literacy communities 12. Spoken, written, visual language</p>
<p>Step 3 Gathering Information and Research p. 18 – 27</p> <p>Define and narrow a topic. Gather information. Evaluate and determine the reliability of sources. Develop notes that include important concepts, paraphrases, and summaries. Use questioning strategies. Use media to conduct and present reports Use library to access media. Use media to enhance reports and oral presentations. Evaluate a variety of media sources</p>	<p>GLE 0501.4.1 Conduct research to access and present information GLE 0502.4.2 Collect, organize, determine reliability, and use information researched GLE 0501.4.5 Organize information from text or technological sources using a graphic organizer GLE 0501.4.9 Discern and use appropriate reference sources in various formats. GLE 0501.5.1 Refine logic skills to facilitate learning and to enhance thoughtful reasoning GLE 0501.5.2 Use logic to make inferences and to draw appropriate conclusions GLE 0501.6.1 Apply appropriate skills and strategies to comprehend informational text. GLE 0501.6.2 Recognize the different text features of informational text GLE 0501.6.3 Follow multi tasked instructions in informational text GLE 0501.6.4 Follow the organizational structure of informational/technical text GLE 0501.7.1 Recognize that media can provide sources of information and entertainment GLE 0501.7.2 Use media to publish and present information GLE 0501.7.3 Understand that the choice of medium influences the message in presentations</p>	<p>1. Print and non-print texts 3. Comprehend, interpret, evaluate, appreciate texts 7. Research by generating ideas, questions, problems 8. Technological and information resources 11. Literacy communities 12. Spoken, written, visual language</p>

<p>Complete graphic organizers to organize information for oral and written presentations. (Cause and Effect/ Brainstorming/ Event map)</p>	<p>Graphic organizers: http://eduscapes.com/tap/topic73.htm http://exchange.ucop.edu http://mail.aubrey.isd.tenet.edu/Help/FOV1-0001AA4A/FAV1-0001AA4B/FOV1-0001AA4D/FOV1-0001AA52/FOV1-0001AA55/S0072FA0B-0072FA10?Templates=Help</p>
<p>Step 2 Selecting a Problem for Class Study p. 17 Discuss and select a Project Citizen problem</p>	<p>Project Citizen Book Page 17 class discussion activity A</p>
<p>List ideas /class discussion/ sharing ideas/ comparing and contrasting ideas</p>	<p>Chart Paper, Dry Erase Board, Markers/Dry Erase Markers Venn Diagram for compare and contrast NB pg: 287 CD pg:</p>
<p>Narrow Topic for writing /Choosing a Project Topic</p> <p>Discuss each topic- allow students to place problems that have been written on a sticky note under appropriate heading on a chart that has a funnel shaped diagram drawn on it and that has been labeled From the top down National, State, Local, School. Discuss each problem and guide students to choose a topic that is closer to the local or school categories because this is where they will have the greatest success. After discussion, choose the top five choices and allow students to vote with their feet where they physically get out of their seats, go to the board, and vote with stickers or by simply making a mark. Problem with the most votes will be the topic for class project. Class comes to a consensus as to the topic the class will research.</p>	<p>http://www.stfrancis.edu/lib/acrobat/narrowing.pdf</p> <p>Focus is on how to narrow a topic for writing or research</p> <p>Chart paper, board, markers, dry erase markers, Funnel shaped diagram, sticky notes, stickers</p>
<p>Enrichment of Learning Activity: hands on learning Classroom activity on voting: Create a mock election (class officers). Nomination process- candidates present platform (campaign). Debate topics important to class. Write and give a speech. Conduct the mock election. (Create a ballot box and ballots, campaign posters etc.)</p>	<p>United Streaming (http://www.unitedstreaming.com) Title: “<u>The almost painless process of elections</u>” (video presents information about the election process and steps that lead to voting)</p>
<p>Step 3 Gathering Information and Research p. 18 – 27 Research and Evaluate information on specific problem</p>	<p>Project Citizen Book: pages 18-27 Class discussion, interview guidelines, documentation of media resources.</p>
<p>Visit school or public library to research class problem topic. Gather local and national newspapers to find newspaper clipping on topic. Read, discuss, analyze information found in media- create a report and share with the class. Invite a guest speaker into the class that have knowledge of the problem class is researching. Write letters to local and state elected officials requesting information on problem topic.</p>	<p>http://www.usatoday.com http://www.tennessean.com (newspapers) http://www.legislature.state.tn.us (contact state representative and senator)</p>

Grade 5: Language Arts

Project Citizen Steps 2008 edition	2009 Subject Area Standards TN Grade Level Indicators(GLE)	National Standards for English/Language Arts
<p>Step 4 Developing a Class Portfolio p. 28 – 49 Write response, Compose multi-paragraph works, Write to explain, persuade, justify</p> <p>Develop Portfolio Notebook and Presentation Boards</p>	<p>GLE 0501.1.1 Demonstrate knowledge of Standard English usage, mechanics, and spelling GLE 0501.1.2 Demonstrate knowledge of strategies and resources to determine the definition, pronunciation, and usage of words and phrases GLE 0501.1.3 Demonstrate knowledge of Standard English sentence structure GLE 0501.2.1 Continue to develop oral language skills necessary for communications GLE 0501.2.2 Continue to develop listening skills necessary for communication GLE 0501.3.1 Write for a variety of purposes and a variety of audiences GLE 0501.3.2 Write in a variety of modes and genres (personal expression, description) GLE 0501.3.3 Know and apply the steps of the writing process GLE 0501.3.4 Write frequently across content areas</p>	<p>3. Comprehend, interpret, evaluate, appreciate texts</p> <p>4. Audience and purposes</p> <p>5. Writing process elements</p> <p>6. Language structure, conventions, media techniques</p> <p>8. Technological and information resources</p> <p>12. Spoken, written, visual language</p>
<p>Step 5 Presenting Your Portfolio p. 50 – 52 Oral and Written Language</p>	<p>GLE 0501.2.1 Continue to develop oral language skills necessary for communications GLE 0501.2.2 Continue to develop listening skills necessary for communication GLE 0501.7.2 Establish rules for polite conversation GLE 0501.7.4 Formulate and respond to questions from teachers and group members</p>	<p>4. Audience and purposes</p> <p>11. Literacy communities</p> <p>12. Spoken, written, visual language</p>
<p>Step 6 Reflecting on Your Learning Experience p. 53 - 55 Written language, writing conventions, paragraphs</p>	<p>GLE 0501.1.1 Demonstrate knowledge of Standard English usage, mechanics, and spelling GLE 0501.1.3 Demonstrate knowledge of Standard English sentence structure GLE 0501.3.2 Write in a variety of modes and genres (personal expression, description) GLE 0501.3.3 Know and apply the steps of the writing process GLE 0501.3.4 Write frequently across content areas GLE 0501.5.1 Refine logic skills to facilitate learning and to enhance thoughtful reasoning. 0501.5.2 Use logic to make inferences and to draw conclusions</p>	<p>3. Comprehend, interpret, evaluate, appreciate texts</p> <p>11. Literacy communities</p>

Sample Classroom Applications	Sample Resources
Interview local and state elected officials and write up response conversation.	http://www.legislature.state.tn.us (contact state representative and senator) http://its.leesummit.k12.mo.us/writing.htm (how to conduct a effective interview) http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/14/b4/41.pdf (article for teachers on how to teach students to effectively interview individuals)
Step 4 Developing a Class Portfolio p. 28 – 49	Project Citizen Book pages 28-48 visual information of project requirements Problem, Alternative Policies, Class Policy, and Action Plan Section of Documentation Binder as well as panels for each stage.
Evaluation of a piece of famous art. (Picasso, Rembrandt) Oral and written discussion of art elements (line, color, special meaning) Show video	Famous art prints for evaluation Art Program: Art Sense Make Art Happen Copyright 1997 Author: Carolyn Crouse Art Sense Inc 1039 Lakeside Court Greensboro, GA 30642 Phone 800/866-5845 Fax 706/ 453-9302 Email: info@artsense.net Website: http://www.artsense.net
Political Cartoons: Small group, cooperative learning, Art application Students watch a video and take notes on the pre-prepared note sheet with content vocabulary. As content is presented on the video-teacher stress by repeating the content to give students a clue as to where to take notes. At the end of video, teacher divides the class into small groups of two or three and allows them to choose one content idea presented in the video to draw a political cartoon with a caption/quote to explain cartoon content that is hidden from view. After group presents-class tries to guess the caption.	http://www.google.com/search?sourceid=navclient&ie=UTF-8&rlz=1T4TSHB_en_US233&q=Discovery+Channel+political+president+video (presidential video with content and political vocabulary) Discovery Channel Video Series: 20th Century Biographies: American Presidents 2-pack DVD American Presidents I — Segments cover Theodore Roosevelt, William Howard Taft, Woodrow Wilson, Warren G. Harding, and Calvin Coolidge. American Presidents II — Segments cover Herbert Hoover, Franklin D. Roosevelt, Harry S. Truman, Dwight D. Eisenhower, John F. Kennedy, and Richard Nixon
Take a stand on a position/defend your stand: questions are presented and students take a stand (strongly agree, agree, undecided, disagree, strongly disagree-these words are written on cards and places around the room in different places). Group discussion within small groups for one minute and then spokesperson shares with the class. (A different spokesperson is required for each question until everyone in the class has had a chance to speak out.)	Human Graph/Continuum: Discussion question bank of relevant issues (this can be issues that are in the news at present time or can be literature relate). For human graph line strongly agree, agree, undecided, disagree, strongly disagree in a row across one end of classroom. For Continuum place response cards around the room.

Grade 5: Language Arts

Project Citizen Steps 2008 edition	2009 Subject Area Standards TN Grade Level Indicators(GLE)	National Standards for English/Language Arts

Sample Classroom Applications	Sample Resources
<p>Constitutional Opinion: Present issue and discuss solutions Write a paper to express whether or not the solution is constitutional. Use reading stories, orally or in writing discuss constitutionality of some solution in the literature.</p>	<p>Copy of the United States Constitution and Amendments Project Citizen book pages 44-45 form to guide decision of Constitutionality of Class policy.</p>
<p>Step 5 Presenting Your Portfolio p. 50 – 52 Present Portfolio information</p>	<p>Project Citizen Book pages: 50-52 Guidelines on how to present information</p>
<p>Prepare and give a speech on a specific topic/Project Citizen Problem (This will help students develop communication skills)</p>	<p>Choose any relevant topic and have student prepare a short speech to defend their belief on topic. Extend: Have students choose the opposite position from their beliefs and defend that position</p>
<p>Wax museum: students take on the role of a specific character in history/literature. Gather information about the person and then become that person for the purpose of presenting the information.</p>	<p>List of names of famous, historical, or story character names. Research materials- internet, encyclopedia, books, newspapers Project boards or poster board for information presentations</p>
<p>Step 6 Reflecting on Your Learning Experience p. 53 – 55</p>	<p>Project Citizen Book Pages 53-55 Activities that guide student reflective learning process and essay</p>
<p>Students use reflection question presented in reflection section to guide reflective writing.</p>	<p>http://overnightessay.com/blog/2007/08/24/reflective-essay (how to write a reflective essay)</p> <p>http://eolit.hrw.com/hlla/writersmodel/pdf/W_S1103.pdf?WebLogicSession=Qhzx0UpELNmxostooouz8PtunTC7282b88xxi4HL8wyc3K7pzFgng%7C19056100342224463/167838195/6/6000/6000/7002/7002/6000/-1 (examples of reflective essays for elementary students)</p> <p>http://www.essaywritinghelp.com/reflective.htm</p>

Standards for the English Language Arts

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<http://www.ncte.org/about/over/standards/110846.htm>

1. Students read a wide range of print and non-print texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.
2. Students read a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience.
3. Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).
4. Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
5. Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
6. Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and non-print texts.
7. Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.
8. Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.
9. Students develop an understanding of and respect for diversity in language use, patterns, and dialects across cultures, ethnic groups, geographic regions, and social roles.
10. Students whose first language is not English make use of their first language to develop competency in the English language arts and to develop understanding of content across the curriculum.
11. Students participate as knowledgeable, reflective, creative, and critical members of a variety of literacy communities.
12. Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).

Notes

Grade 5: Mathematics

Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Council of Teachers of Mathematics Standards
<p>Step 3 Gathering Information and Research p. 18 – 27</p> <p>Step 4 Developing a Class Portfolio p. 28 – 49</p> <p>Step 5 Presenting Your Portfolio p. 50 – 52</p>	<p><i>Numbers and Operations</i> SPI 0506.1.2 Estimate fraction and decimal sums or differences.</p> <p><i>Algebra</i> SPI 0506.2.3 Select a reasonable solution to a real-world division problem in which the remainder must be considered.</p> <p><i>Measurement</i> SPI 0506.4.4 Solve problems involving surface area and volume of rectangular prisms and polyhedral solids. SPI 0506.4.6 Record measurements in context to reasonable degree of accuracy using decimals and/or fractions.</p> <p><i>Data and Probability</i> SPI 0506.5.1 Depict data using various representations, including decimal and/or fractional data. SPI 0506.5.2 Make predictions based on various data representations, including double bar and line graphs</p>	<p><i>Numbers and Operations</i> Understand numbers, ways of representing numbers, relationships among numbers, number systems. Understand meanings of operations and how they relate to one another. Compute fluently and make reasonable estimates.</p> <p><i>Algebra</i> Understand patterns, relations and functions.</p> <p><i>Measurement</i> Understand measurable attributes of objects and the units, systems, and processes of measurement Apply appropriate techniques, tools, and formulas to determine measurements</p> <p><i>Data Analysis and Probability</i> Understand and apply basic concepts of probability. Select and use appropriate statistical methods to analyze data.</p>

Sample Classroom Applications	Sample Resources
<p>SPI 0506.1.2 Estimate fraction and decimal sums or differences.</p> <p>Students estimate and then investigate gas mileage for different cars. In order to make a reasonable claim as to which car is better, students have to evaluate the gas mileage in regards to highway and city mileage.</p> <p>SPI 0506.2.3 Select a reasonable solution to a real-world division problem in which the remainder must be considered.</p> <p>Students plan a bake sale to raise money for the local animal shelter. Given a recipe for sugar cookies, students multiply and divide the ingredients to make enough cookies for the entire student population.</p> <p>SPI 0506.4.4 Solve problems involving surface area and volume of rectangular prisms and polyhedral solids.</p> <p>Create a scale model of the Pyramid of Giza using an 8 1/2 x 11 sheet of paper. What is the surface area and volume of the pyramid. The formulas are given. However, this would be a great opportunity to introduce how to deduce a formula from given information. After students construct their pyramids, instead of giving the formulas for surface area and volume, put the students into groups and have each group determine how to find the surface area and volume of a pyramid by deducing a formula for both. Then, let each group explain how and why they came up with their specific formulas.</p> <p>SPI 0506.4.6 Record measurements in context to reasonable degree of accuracy using decimals and/or fractions.</p> <p>Teachers can integrate this problem into a science lesson. The challenge requires students to determine their body mass index (BMI), by using a given formula. In small groups students could first, measure, and weigh each other, then compute each others' body mass index. Each group could then make a chart showing their findings and present it to the class.</p>	<p>Internet resources:</p> <p>http://illuminations.nctm.org/ library of 103 online activities that help to make math come alive in the classroom or at home. Includes hundreds of exemplary online resources.</p> <p>http://nlvm.usu.edu/ National library of virtual manipulatives. Includes numbers and operations, algebra, geometry, measurement, and data and probability.</p> <p>http://www.mathfactcafe.com/ free downloadable math assignments and worksheets related to specific standards.</p> <p>http://www.coolmath4kids.com/ many math links to sites and print resources. Interactive or downloadable lessons. Skills specific.</p> <p>http://www.webmath.com/index3.html K-8 math site. Online help with math problems. Includes links to lessons and challenges.</p> <p>http://www.math.rice.edu/~lanius/pro/rich.html Million-dollar mission. Math activity about graphs and volumes. Shows quantities (one million pennies) in proportion to a human.</p> <p>http://www.mathgoodies.com/lessons/ Includes lessons on decimals, percents, data and graphs, probability and more.</p> <p>Print resources:</p> <p><i>Good Questions for Math Teaching: Why Ask Them and What to Ask</i> by Peter Sullivan and Pat Lilburn. This book helps teachers define good questions and offers teachers tips on how to create their own questions. Includes sample questions for 16 mathematical topics.</p> <p><i>Teaching Student-Centered Mathematics: Grades 3-5, Vol. 2</i> by John Van de Wall and Lou Ann H. Lovin. Provides clear explanations of the most critical concepts in 3-5 math. Includes problem based activities and provides examples for creating step-by-step lesson plans.</p>



Project Citizen Steps 2008 edition	Subject Area Standard TN State Performance Indicators (SPI)	National Council of Teachers of Mathematics Standards

Sample Classroom Applications	Sample Resources
<p>SPI 0506.5.1 Depict data using various representations, including decimal and/or fractional data.</p> <p>SPI 0506.5.2 Make predictions based on various data representations, including double bar and line graphs.</p> <p>Students collect data using the United States Census Bureau. They organize data in a spreadsheet and interpret the data collected by ordering, comparing, and writing the numbers in multiple ways. Students analyze the data by making predictions based on the bar and line graphs.</p> <p>Students participate in activities in which they investigate the data in connection with recyclable materials and develop plans to help the environment. The activities are designed to make students aware of various materials that people ordinarily use and discard, to increase their knowledge of the numbers of material that people use, and to make plans to use materials more conservatively. Plans may include reducing material used, reusing materials, or recycling them. Each activity should include gathering, graphing, and interpreting data.</p>	

Notes