

MEMORANDUM OF UNDERSTANDING THE SOCIAL STUDIES COALITION OF DELAWARE

PURPOSE OF THIS MEMO

This memorandum of understanding will define the roles and responsibilities of each party in the Social Studies Coalition of Delaware (SSCD). This coalition is a partnership with the purpose to improve the teaching and learning of K-12 social studies in Delaware public schools and to help all Delaware public school students reach the Delaware Social Studies Standards.

The partnership includes the Department of Education, public school districts throughout the state, charter schools, and other agencies involved in standards-based instruction and assessment (Center for Economic Education and Entrepreneurship, Delaware Geography Alliance, Delaware Social Studies Education Project, Democracy Project and State Archives). The partnership is open to all public school entities, including vocational/technology schools and charter schools, that agree to collaborate in the systemic improvement of their K-12 social studies programs as outlined in this memorandum.

This Memorandum of Understanding (MoU) defines the conditions under which the Coalition will be financed, principles for operation and the collaborative processes as established by the Coalition. The MoU can be modified at any time by majority agreement of voting members of the Steering Committee.

MISSION

The Coalition exists to support the creation of the highest quality social studies instruction for the K-12 students in Delaware. The goals of the SSCD are to:

- Assist districts in the development of assessments to guide social studies curriculum development and instruction at the district level.
- Continue the development and alignment of social studies curriculum and instructional materials by designing model lessons for each benchmark to be distributed to members of the Coalition.
- Provide staff development for curriculum development and instructional delivery.
- Provide leadership and an organizational structure to facilitate planning, assist with the development of instructional materials and coordinate the delivery of the items listed above.

GUIDING PRINCIPLES

- The purpose of the partnership is to support continuous standards-based reform of social studies education in Delaware schools.
- Adoption and implementation of curricula is the responsibility of individual school systems. The Coalition is established to assist them in this endeavor and to provide cost effective standards-based education programs.
- Costs will be shared in a way that all parties benefit as equally as possible. Every effort will be made to provide services in support of the program at cost. Member districts and charter schools will pay \$2000 by Sept. 30, 2012 to support Coalition actions beginning July 1, 2012 through June 30, 2013 for professional development, development of products and other activities. Thereafter, annual fees will be determined by the Board.
- Professional development will be provided by the Coalition. Individual districts/charter schools will provide additional support for the participants.
- The Coalition will seek to coordinate financial support from foundations, affiliates and others for implementation of standards-based social studies education for Delaware students.

GOVERNANCE OF THE COALITION

The Coalition will be directed by the Board that includes voting and non-voting members. Voting members shall include a representative from each member school district and charter school that has paid its annual fee. Non-voting members shall include two representatives from the Department of Education, affiliate members including the Center for Economic Education and Entrepreneurship, the Delaware Geographic Alliance, the Delaware Social Studies Education Project and the Democracy Project as well as future affiliate members.

The purpose of the Board is to:

- Establish and approve operating policies and practices for the Coalition.
- Set and approve the annual budget for the Coalition and monitor expenditures. The Milford School District has agreed to act as the fiscal agent at no cost, and for this will receive a reduced membership fee for the 2012-2013 school year.
- Establish and implement an effective communications program.
- Take a leadership role in developing and overseeing a strategic plan for K-12 social studies education in Delaware.
- Promote partnerships among the K-12 public schools, higher education and the business community.

Coalition Leadership – SSCD leadership shall be administered by an Executive Committee and directed by the Board. An Executive Secretary and two chairpersons shall be elected by the voting members of the Steering Committee to a two year, staggered term without remuneration and will coordinate the Coalition’s activities and chair meetings. Additionally, the Executive Committee shall consist of two non-voting members from the Department of Education as well as one representative from each of the three counties who are approved by the Board.

The Board will establish sub-committees to manage specific aspects of the Coalition. These committees will be defined as the Coalition membership is firmly established. Meetings of the Coalition’s Executive committee and Board will be held on a monthly basis.

Signatures of Agreement – 2012 - 2013

SSCD Representative

Date

Superintendent –S.D./Charter

Date

School District/Charter School name _____

Social Studies Coalition of Delaware

Partnering to Promote Student Achievement & Quality Teaching



Mrs. Sally Maldonado
Head of School
Kuumba Academy Charter School

August 21, 2012

Dear Mrs. Maldonado,

During the last few years, the Social Studies Coalition of Delaware has met monthly to address social studies issues that affect all districts and held institutes and workshops in the four strands of social studies. This year we continued our Lead Teacher Project, providing training in the implementation of Delaware Recommended Curriculum units. SSCD is also working collaboratively with the Delaware Department of Education to fund and write units of instruction that align with the Delaware social studies standards. The Lead Teachers of your district can now be used for professional development and as a resource for improving social studies instruction. Among our plans for year is to continue developing units of instruction, training Lead Teachers in the implementation of those units, offering researched based strategy training, and offering to support the development of the state assessment. Please visit our website at <http://www.sscde.org/> to find out more about the organization. We are looking forward to continuing the efforts of the Coalition and ask you to renew your membership.

All nineteen districts are members of the Coalition and it is time for the districts to make their commitment to the SSCD for the 2012-2013 school year. The fee is \$2000 for the period from July 1, 2012 to June 30, 2013. Payment would be due by September 30, 2012 in order to accommodate availability of funds for each district, depending on their source of funding.

Please review and sign the attached Memorandum of Understanding. **Send the agreement to Travis Moorman of the Milford School District (S 108)**, the Coalition's fiscal agent, when you request an IV for your business office.

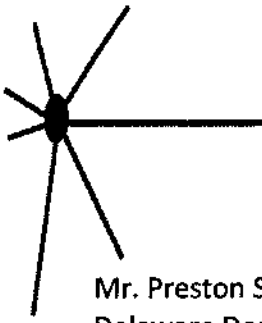
The Social Studies Coalition of Delaware appreciates your continuing support for social studies education. If you have any questions, please feel free to contact the officers of the SSCD listed below:

Lisa Prueter (on leave Fall 2013)	Appoquinimink School District Co-Chair, Executive Board SSCD – 376-4118
Melissa Brady	Christina School District Co-Chair, Executive Board SSCD
Fran O'Malley	Delaware Social Studies Education Project Executive Secretary SSCD – 831-8443

Sincerely,

Lisa Prueter
SSCD Co-Chair

pc: SSCD Member



KUUMBA ACADEMY CHARTER SCHOOL

Mr. Preston Shockley, Education Associate for Social Studies
Delaware Department of Education
John G. Townsend Building
401 Federal Street, Suite 2
Dover, DE 19901

October 8, 2012

Dear Mr. Shockley:

The Kuumba Academy Charter School is a member of the Delaware Social Studies Coalition. The instructed curriculum used in the grade cluster(s): K-2nd, 3rd-5th and anticipated grades 6-8 is the curriculum of the Delaware Social Studies Coalition. This curriculum is aligned to the Delaware Content Standards, and includes units of instruction that align the standards to instruction and assessment. The units that have been developed by the Delaware Social Studies Coalition are used by all teachers in grades K-5 and will be used by all teachers in grades 6-8 as a means of instructing students and assessing student progress towards the standards. The following units will be used by the district in grades 6-8:

Grade 6

- Building Global Mental Maps
- Culture & Civilization
- Economic Systems
- Reasons for Regions
- How Markets Work

Grade 7

- Conflict & Cooperation
- Expansion of Freedom
- Historical Research
- Project Citizen

Grade 8

- American Principles
- Federalism
- How Markets Work
- Interpreting the Past – The Case of the "Bloody Massacre"

Tamara Price-Cobb, Curriculum Director, Kuumba Academy Charter School

Curriculum Framework Social Studies

School: Kuumba Academy Charter School

Curricular Tool: DE SS Coalition

Grade: 6

Teacher: _____

Standards Alignment	Unit Concept/ Big Ideas	Essential Questions/ Learning Targets	Assessments
Unit One: Building Global Mental Maps (Delaware Model Unit) Timeline : 6 weeks			
<p>Geography Standard One Students will develop a personal geographic framework, or “mental map” and understand the uses of maps and other geographics [Maps]</p> <p>6-8a: Students will demonstrate mental maps of the world and its sub-regions which include the relative location and characteristics of major physical features, political divisions, and human settlements.</p>	<p>Concepts Mental Mapping</p> <p>Big Ideas Mental maps summarize differences and similarities about places. These differences and similarities lead to conflict or cooperation and the exchange of goods and ideas between peoples.</p> <p>Mental maps change as the scale moves from local to global. We know more about our home area than more distant places, and these differences affect how we feel and behave towards places that are distant versus those that are close.</p> <p>Mapped patterns are analyzed and used help solve societal problems.</p> <p>Maps can be used to distort or introduce bias into the information they portray.</p>	<p>Essential Questions: How do personal mental maps effectively change and develop?</p> <p>What are mental maps? How can mental maps be created and used effectively?</p> <p>Why do maps have distortions?</p> <p>How have cartographers minimized distortions?</p> <p>When should a certain map projection be used over another?</p> <p>How can we help build our mental maps through visual association?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> Demonstrate how their personal mental maps have been expanded through instruction that focuses on gathering, extending and refining, and applying knowledge of characteristics essential for accurate mental maps. 	<p>Suggested Formative Assessments: Teacher observation Formative checks for understanding Student Self Assessment Student Reflections</p> <p>Suggested Summative Assessments: Performance Tasks Transfer tasks Rubrics</p>
Unit Two: Those Who Came Before Us Timeline: 6 weeks			
<p>History Standard One: Students will employ chronological</p>	<p>An understanding of history helps us to predict what will happen in the</p>	<p>Essential Questions: Is change inevitable?</p>	<p>Suggested Formative Assessments:</p>

Standards Alignment	Unit Concept/ Big Ideas	Essential Questions/ Learning Targets	Assessments
<p>concepts in analyzing historical phenomena [Chronology].</p> <p>6-8a: Students will examine historical materials relating to a particular region, society, or theme; analyze change over time, and make logical inferences concerning cause and effect.</p> <p>History Standard Four: Students will develop historical knowledge of major events and phenomena in world, United States, and Delaware history [Content].</p> <p>6-8b: Students will develop an understanding of ancient and medieval world history, and the continuing influence of major civilizations, including: -- The beginnings of human society -- Early civilizations and pastoral peoples (4,000-1,000 BC) -- Classical traditions, major religions, and great empires (1,000 BC--300 AD) -- Expanding zones of exchange and encounter (300-1,000 AD) -- Intensified hemispheric interactions (1,000-1,500 AD) Geography Standard Two: Students will develop a knowledge of the ways humans modify and respond to the natural environment</p>	<p>future based on our understanding of what happened in the past</p> <p>Chronology is understanding (<i>why</i> and <i>how</i>) that one event may or may not lead to subsequent events</p> <p>History is often messy, yet a historian must logically organize events, recognize patterns and trends, explain cause and effect, make inferences, and draw conclusions from those sources which are available at the time.</p> <p>The questions a historian chooses to guide historical research that creates accurate chronologies will affect which events will go into the chronology and which will be left out. Competing chronologies can both be accurate, yet may not be equally relevant to the specific topic at hand.</p> <p>The human response to the characteristics of a physical environment comes with consequences for both the human culture and the physical environment.</p>	<p>How often does the past predict the future?</p> <p>What is the evidence for my conclusion?</p> <p>Under what conditions should human cultures attempt to change the processes that shape the natural environment?</p> <p><u>Learning Targets:</u></p> <ul style="list-style-type: none"> • Students will organize events through chronologies to suggest and evaluate cause-and-effect relationships among those events. • Students will study the ways in which individuals and societies have changed and interacted over time. • Students will acquire the skills of gathering, examining, analyzing, and interpreting data. • Students will understand that, before choosing a position or acting, research needs to be accomplished in order to understand the effect of historical developments and trends on subsequent events. • Students will possess a knowledge of geography and an ability to apply a geographical perspective to life situations. All physical phenomena and human activities exist in space as well as time. • Students will study the relationships of people, places, and environments from the perspective of where they occur, why they are there, and what meaning those locations have for us. 	<p>Self assessment and reflection Think-Pair-Share simulations Whole group discussion Debriefing questions Graphic organizers Checks for understanding</p> <p><u>Suggested Summative Assessments:</u> Performance Tasks Transfer tasks Rubrics</p>

Standards Alignment	Unit Concept/ Big Ideas	Essential Questions/ Learning Targets	Assessments
<p>[ENVIRONMENT].</p> <p>6-8a: Students will apply a knowledge of the major processes shaping natural environments to understand how different peoples have changed and been affected by, physical environments in the world's sub-regions.</p>		<ul style="list-style-type: none"> Students with the knowledge and perspectives of geography will understand the environmental and human processes that shape the Earth's surface, and recognize the culturally distinctive ways people interact with the natural world to produce unique places. Students with an appreciation of the nature of their world and their place in it will be better prepared citizens for a physical environment more threatened and a global economy more competitive and interconnected. 	
<p>Unit Three: Culture and Civilization (Delaware Model Unit) Timeline: 6 weeks</p>			
<p>Geography Standard Three Students will develop an understanding of the diversity of human culture and the unique nature of places [Places]</p> <p>6-8a: Students will identify and explain the major cultural patterns of human activity in the world's sub-regions.</p>	<p>Concepts Place Culture Civilization</p> <p>Big Ideas Places are unique associations of natural environments and human cultural modifications.</p> <p>Concepts of site and situation can explain the uniqueness of places. As site or situation change, so also does the character of a place.</p>	<p>Essential Questions: What makes a place culturally unique?</p> <p>What is culture? Why is it important to understand culture?</p> <p>What makes ancient civilizations culturally unique?</p> <p>Under what conditions do cultures spread?</p> <p>To what extent did ancient civilizations influence the culture of other places?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> Analyze, access, evaluate, and create information in a variety of forms and media Understand, manage, and create effective communication 	<p>Suggested Formative Assessments: Teacher observation Formative checks for understanding Student Self Assessment Student Reflections</p> <p>Suggested Summative Assessments: Transfer tasks Rubrics</p>

Standards Alignment	Unit Concept/ Big Ideas	Essential Questions/ Learning Targets	Assessments
		<ul style="list-style-type: none"> • Exercise sound reasoning in understanding and making complex choices • Work productively with others • Locate appropriate resources 	
Unit Four: Reasons for Regions (Delaware Model Unit) Timeline: 8 weeks			
<p>Geography Standard Four: Students will develop an understanding of the character and use of regions and the connections between and among them [REGIONS]</p> <p>6-8a: Students will understand the processes affecting the location of economic activities in different world regions.</p>	<p>Concepts: Regions Land use Economic activity Economic specialization</p> <p>Big Ideas: A region is a concept rather than a real object on the ground, used to simplify the diversity of places.</p> <p>Economic activities often produce regional patterns of land use.</p>	<p>Essential Questions: To what degree are economic regions specialized?</p> <p>What’s “special” about a given region and how could it change?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> • Provide examples of types of regions • Identify typical patterns on the landscape produced by various economic activities • Provide examples of regions that specialize in certain economic activities • Interpret maps and geo-graphics to gather information about resources and economic activity • Compare two regions in terms of specialization 	<p>Suggested Formative Assessments: Self assessment</p> <p>Suggested Summative Assessments: Transfer tasks rubrics</p>
Unit Five: Economic Systems (Delaware Model Unit) Timeline: 8 weeks			
<p>Economics Standard Three Students will understand different types of economic systems and how they change [Economic Systems]</p>	<p>Concepts Economic Systems Production Distribution</p>	<p>Essential Questions: How are decisions about the production and distribution of goods and services dependent upon cultural values, availability and quality of resources, and the extent and use of</p>	<p>Suggested Formative Assessments: Teacher observation Formative checks for understanding</p>

Standards Alignment	Unit Concept/ Big Ideas	Essential Questions/ Learning Targets	Assessments
<p>6-8a: Students will demonstrate the ways in which the means of production, distribution, and exchange in different economic systems have a relationship to cultural values, resources, and technologies.</p>	<p>Exchange Cultural Values Productive Resources Technology</p> <p><u>Big Ideas</u> Because resources are scarce, societies must organize the production, distribution, and exchange of goods and services.</p> <p>The way societies make economic decisions depends on cultural values, availability and quality of resources, and the extent and use of technology.</p> <p>Changing economic systems impact standards of living.</p>	<p>technology?</p> <p>How does a society’s economic system impact its standard of living?</p> <p><u>Learning Targets:</u></p> <ul style="list-style-type: none"> • Evaluate different methods of distribution. • Describe various methods of production. • Analyze how culture and productive resources affect the production of goods and services. 	<p>Student Self Assessment Student Reflections <u>Suggested Summative Assessments:</u> Transfer tasks Rubrics</p>

Curriculum Framework Social Studies

School: Kuumba Academy Charter School

Curricular Tool: DE SS Coalition

Grade: 7

Teacher: _____

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
Unit One: Conflict and Cooperation (Delaware Model Unit) Timeline : 6 weeks			
<p>Geography Standard Three: Students will develop an understanding of the diversity of human culture and the unique nature of places [PLACES].</p> <p>6-8a: Students will identify and explain the major cultural patterns of human activity in the world's sub-regions</p> <p>Geography Standard Four Students will develop an understanding of the character and use of regions and the connections between and among them [Regions]</p> <p>6-8b: Students will explain how conflict and cooperation among people contribute to the division of the Earth's surface into distinctive cultural and political territories.</p>	<p>Concepts Regions Global Citizenship</p> <p>Big Ideas Regional characteristics are usually unevenly distributed; the regional core has the highest concentration, while the periphery has a more dispersed pattern.</p> <p>Boundaries and borders are drawn by people to divide land in ways that meet their cultural, economics, or political needs.</p> <p>When boundaries and borders are drawn for people without taking into account cultural, economic, or political needs conflict might result.</p> <p>Places are unique associations of natural environments and human cultural modifications.</p> <p>Concepts of site and situation can explain the uniqueness of places. As site or situation change, so also does the character of a place</p>	<p>Essential Questions: Why do people identify with territories and use borders to geographically define their space?</p> <p>How might territorial identity and claims on land change over time?</p> <p>How does conflict and cooperation among people influence territorial control? (To what extent is territory also an expression of political or cultural identity? How might this view of territory explain conflicts between nations or ethnic groups over space?)</p> <p>What makes a place culturally unique?</p> <p>Under what conditions do cultures spread?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> • Analyze regions <ul style="list-style-type: none"> • Economic, physical, political, and economic regions • Formal, functional, perceptual regions • Core, domain, periphery of regions • Explain how conflict and cooperation among people contribute to the division of the Earth's surface into distinctive cultural and political territories • Explain why territorial identity and claims 	<p>Suggested Formative Assessments: Checks for understanding at the conclusion of each lesson.</p> <p>Student Self Assessment and Reflection</p> <p>Graphic Organizers</p> <p>Think-Pair-Share</p> <p>Suggested Summative Assessments: Performance Tasks Rubrics</p>

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
		on land change over time in some locations, but not others	
Unit Two: Expansion of Freedom (Delaware Model Unit) Timeline: 6 weeks			
<p>Civics Standard Two Students will understand the principles and ideals underlying the American political system [Politics]</p> <p>6-8a: Students will understand that the concept of majority rule does not mean that the rights of minorities may be disregarded and will examine and apply the protections accorded those minorities in the American political system.</p>	<p>Concepts Majority Rule Expansion of Freedom</p> <p>Big Ideas Students will understand that the principles and ideals of the American democratic system are designed to promote the freedoms of the American people.</p>	<p>Essential Questions: How might the majority threaten individual and minority rights? Why are citizens protected by the Constitution? Should individual rights be limited?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> Identify the protections awarded to minorities by the Constitution. Analyze the individual protections in the Bill of Rights. Construct support for the necessity of protecting individual rights. 	<p>Suggested Formative Assessments: Self assessment and reflection Think-Pair-Share simulations Whole group discussion Debriefing questions Graphic organizers Checks for understanding</p> <p>Suggested Summative Assessments: Transfer Task- “Should individual rights be limited?” Scoring Guide Rubric</p>
Unit Three: Historical Research (Delaware Model Unit) Timeline: 8 weeks			
<p>History Standard Two Students will gather, examine and analyze historical data [Analysis]</p> <p>6-8a: Students will master the basic research skills necessary to conduct an independent investigation of historical phenomena.</p> <p>6-8b: Students will examine</p>	<p>Concepts Investigation</p> <p>Big Ideas Many different types of sources exist to help us gather information about the past, such as artifacts and documents. Sources about the past need to be critically analyzed and categorized as they are used.</p>	<p>Essential Questions: Is this source credible? How do I know? What questions should I ask before I use this source? After I use it? What causes an individual to impact history? What is the best way to complete a research project?</p>	<p>Suggested Formative Assessments: Checks for understanding Student self assessment and reflection Journal Prompts</p> <p>Suggested Summative Assessments: Performance Task-National History Day Project</p>

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
<p>historical documents, artifacts, and other materials, and analyze them in terms of credibility, as well as the purpose, perspective, or point of view for which they were constructed.</p>	<p>Critical investigation demands constant reassessment of one's research strategies.</p> <p>A historian must prove where the information can be found that is the basis for historical conclusions.</p>	<p>How do I avoid plagiarism?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> Analyze, access, manage, integrate, evaluate and create information in a variety of forms and media Understand, manage, and create effective oral, written, or multimedia communication Frame, analyze, and solve problems Locate appropriate resources 	<p>Rubrics</p>
<p>Unit Four: Specialized Economies Timeline: 6 weeks</p>			
<p>Economics Standard Four: Students will examine the patterns and results of international trade [International trade].</p> <p>6-8a: Students will examine how nations with different economic systems specialize and become interdependent through trade and how government policies allow either free or restricted trade</p>	<p>Concepts: Specialization Tariff Quotas Embargoes Subsidies</p> <p>Big Ideas: Individuals and nations trade when all parties expect to gain.</p> <p>Nations with different economic systems often specialize and become interdependent as a result of international trade.</p> <p>Government actions that promote competition and free trade among people and nations increase the health of an economy and the welfare of nations.</p>	<p>Essential Questions: Why should a country specialize and trade? Why might government make rules for trade?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> Identify and define governmental policies that restrict trade. Analyze how government policies affect them as consumers, workers, and producers. 	<p>Suggested Formative Assessments: Self assessment and reflection Think-Pair-Share simulations Whole group discussion Debriefing questions Graphic organizers Checks for understanding</p> <p>Suggested Summative Assessments: Performance task Rubric</p>

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
Unit Five: Project Citizen (Delaware Model Unit) Timeline: 6 weeks			
<p>Civics Standard Four Students will develop and employ the civic skills necessary for effective, participatory citizenship [Participation]</p> <p>6-8a: Students will follow the actions of elected officials, and understand and employ the mechanisms for communicating with them while in office.</p>	<p>Concepts Social decision-making Public policy Citizenship</p> <p>Big Ideas Effective citizens can research issues, form reasoned opinions, support their positions, and engage in the political process.</p> <p>Effective governance requires responsible participation from diverse individuals who translate beliefs and ideas into lawful action and policy.</p>	<p>Essential Questions: Which means for communicating with officeholders is usually more effective and why?</p> <p>How can citizens influence the public policy-making process?</p> <p>Why is it important to know about the person and circumstances when communicating with an officeholder?</p> <p>How can a citizen persuade a policymaker to adopt a public policy problem?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> Identify public policy issues in their community. Implement research strategies to effectively gather information on a particular public policy issue. Act responsibly with the interests of the larger community in mind. 	<p>Suggested Formative Assessments: Personal journals/Communication logs Think-Pair-Share Student self assessment Graphic organizers Checks for understanding</p> <p>Suggested Summative Assessments: Performance task Rubric</p>
Unit Six: Why Trade? (Delaware Model Unit) Timeline: 1 week			
<p>Economics Standard Four 6-8a: Students will examine how nations with different economic systems specialize and become interdependent through trade and how government policies allow either free or restricted trade.</p>	<p>Concepts: Trade occurs when all parties expect to benefit.</p> <p>Nations with different economic systems are interdependent due to specialization and trade.</p> <p>Government policies affect trade.</p>	<p>Essential Questions: Why do individuals and countries trade? Why do individuals and businesses within a country specialize?</p> <p>Why and when might government make rules for trade?</p>	<p>Suggested Formative Assessment: Word wall/Concept map Think-Pair-Share Exit Tickets/Checks for understanding</p> <p>Suggested Summative Assessment:</p>

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
	<p><u>Big Ideas:</u> Individuals and nations trade when all parties expect to gain.</p> <p>Nations with different economic systems often specialize and become interdependent as a result of international trade.</p> <p>Government actions that promote competition and free trade among people and nations increase the health of an economy and the welfare of nations.</p>	<p>How do government policies impact consumers and producers?</p> <p><u>Learning Targets:</u></p> <ul style="list-style-type: none"> • Evaluate the impact of government trade policies have on foreign and domestic consumers, producers, and resource owners • Explain how and why people trade • Analyze costs and benefits of trade 	<p>Transfer task Rubrics Open Ended responses</p>

Curriculum Framework Social Studies

School: Kuumba Academy Charter School

Curricular Tool: DE SS Coalition

Grade: 8

Teacher: _____

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
Unit One: American Principles (Delaware Model Unit) Timeline : 8 weeks			
<p>Civics Standard Two Students will understand the principles and ideals underlying the American political system [Political]</p> <p>6-8b: Students will understand the principles and content of major American state papers such as the Declaration of Independence; United States Constitution (including the Bill of Rights); and the Federalist Papers.</p> <p>History Standard Two: Students will gather, examine, and analyze historical data [Analysis].</p> <p>6-8b: Students will examine historical documents, artifacts, and other materials, and analyze them in terms of credibility, as well as the purpose, perspective, or point of view for which they were constructed.</p>	<p><u>Concepts</u> Means to achieve individual liberty</p> <p><u>Big Ideas</u> The principles and ideals underlying American democracy are designed to promote the freedom of the American people.</p>	<p><u>Essential Questions:</u></p> <p>How are the principles of the major American state papers guaranteeing liberty to contemporary Americans?</p> <p>On what principles does the American political system rest?</p> <p>How have the American people attempted to achieve and uphold the principles found in the major American state papers?</p> <p><u>Learning Targets:</u></p> <ul style="list-style-type: none"> • Identify the principles of the major American state papers. • Analyze the Founding Fathers' perspectives and purposes regarding the principles. • Identify practical application of the principles throughout different time periods and present day. • Evaluate America's fulfillment of the principles during different time periods. 	<p><u>Suggested Formative Assessments:</u> Self Assessment and reflection Journal/learning log Checks for understanding Think-Pair-Share Graphic organizer</p> <p><u>Suggested Summative Assessments:</u> Transfer task Rubric</p>

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
Unit Two: Federalism (Delaware Model Unit) Timeline: 8weeks			
<p>Civics Standard One Students will examine the structure and purposes of governments with specific emphasis on constitutional democracy [Government]</p> <p>6-8a: Students understand that governments have the power to make and enforce laws and regulations, levy taxes, conduct foreign policy, and make war.</p> <p>6-8b: Students will analyze the different functions of federal, state, and local governments in the United States and examine the reasons for the different organizational structures each level of government displays.</p>	<p>Concepts Powers of government Functions of government Structures of government</p> <p>Big Ideas Governments are given certain powers so that they can fulfill the purposes for which they were created.</p> <p>Constitutional democracy as a structure of government developed from the tension between the need for authority and the need to constrain authority.</p> <p>Governments are structured to address the basic needs of the people in a society.</p>	<p>Essential Questions: Why does a government have certain powers?</p> <p>What different needs should be addressed by the different levels of government?</p> <p>Has the idea of what is an appropriate power of government changed or remained the same over time?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> • Effectively use social studies materials and knowledge as evidence. • Solve problems and to make and support reasoned decisions about how citizens access government. • Draw sound inferences regarding the level of government most likely equipped to solve problems commonly encountered by citizens. • Skillfully use content-appropriate vocabulary in order to communicate understanding of key content and concepts such as laws, regulations, levy, taxes, foreign policy, war, unitary, federal, confederate, state, local, federalism, concurrent. • Explain the reasoning used in making government decisions. • Understand the interconnection between different levels of 	<p>Suggested Formative Assessments: Self assessment and reflection Think-Pair-Share Checks for understanding</p> <p>Suggested Summative Assessments: Transfer Task Rubrics</p>

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
		government.	
Unit Three: How Markets Work (Delaware Model Unit) Timeline: 8weeks			
<p>Economics Standard One Students will analyze the potential costs and benefits of personal economic choices in a market economy [Microeconomics]</p> <p>6-8a: Students will analyze how changes in technology, costs, and demand interact in competitive markets to determine or change the price of goods and services.</p> <p>Economics Standard Two Students will examine the interaction of individuals, families, communities, businesses, and governments in a market economy [Microeconomics]</p> <p>6-8a: Students will analyze the role of money and banking in the economy, and the ways in which government taxes and spending affect the functioning of market economies.</p>	<p>Concepts Market Economy Supply and Demand</p> <p>Big Ideas Due to scarcity, individuals, families, communities, and societies as a whole must make choices in their activities and consumption of goods and services.</p> <p>Goods, services, and resources in a market economy are allocated based on the choices of consumers and producers.</p> <p>Effective decision making requires comparing the additional costs of alternatives relative to the additional benefits received.</p>	<p>Essential Questions: Under what market conditions does price change?</p> <p>How is demand changed when income, taste, number of buyers, and prices of other goods change?</p> <p>How does supply influence prices of goods and services in a market economy?</p> <p>How is supply affected when input costs, number of producers, and taxes change?</p> <p>Learning Targets:</p> <ul style="list-style-type: none"> • Graph supply and demand curves. • Predict how prices in a market economy change given a specific market change. • Explain how prices change using content-appropriate vocabulary. 	<p>Suggested Formative Assessments: Self assessment and Reflection Think-Pair-Share Checks for Understanding Interactive Notebook</p> <p>Suggested Summative Assessments: Transfer task Rubric</p>
Unit Four: Interpreting the Past-The case of the “Bloody Massacre” (Delaware Model Unit) Timeline: 8weeks			
<p>History Standard One: Students will employ chronological concepts in analyzing historical phenomena [Chronology].</p> <p>6-8a: Students will examine historical materials relating to a particular region, society, or theme; analyze change over time, and make logical</p>	<p>Concepts Investigation Interpretation Change over time</p> <p>Big Ideas What is written by a historian</p>	<p>Essential Questions: Why might historians disagree about the same historical event?</p> <p>To what extent does history change?</p> <p>Learning Targets:</p>	<p>Suggested Formative Assessments: Checks for understanding Error Analysis Graphic organizers</p> <p>Suggested Summative Assessments:</p>

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
<p>inferences concerning cause and effect.</p> <p>History Standard Three Students will interpret historical data [Interpretation]</p> <p>6-8a: Students will compare different historians’ descriptions of the same societies in order to examine how the choice of questions and use of sources may affect their conclusions.</p> <p>History Standard Four: Students will develop historical knowledge of major events and phenomena in world, United States, and Delaware history [Content].</p> <p>6-8a: Students will develop an understanding of pre-industrial United States history and its connections to Delaware history, including: -- Three worlds meet (Beginnings to 1620) -- Colonization and Settlement (1585-1763) -- Revolution and the New Nation (1754-1820s) -- Expansion and Reform (1801-1861) -- Civil War and Reconstruction (1850-1877)</p>	<p>depends upon that historian’s personal background and methods, the questions asked about the sources, and the sources used to find the answers to those questions.</p> <p>Historians select important events from the past they consider worthy of being taught to the next generation. That selection process, deciding what to emphasize, and the questions that historians ask of the documents and other evidence, contributes significantly to the conclusions drawn.</p> <p>History is what the historian says it is. Historians may collect, use, and emphasize sources in ways that result in differing interpretations as they describe, compare, and interpret historical phenomena. Disagreement between historians about the causes and effects of historical events may result from these differences over time.</p>	<ul style="list-style-type: none"> • Use social studies materials and knowledge as evidence to solve problems and to make and support reasoned decisions, explanations, conclusions, or predictions. • Use content-appropriate vocabulary in order to communicate understanding of key content and concepts. • Analyze, access, manage, integrate, evaluate, and create information in a variety of forms and media. • Develop, implement, and communicate new ideas to others. • Work productively with others. • Identify major events within a period of time. 	<p>Performance/Transfer Task Rubrics</p>
<p>Unit Five: Money, Banking and Taxes (Delaware Model Unit) Timeline: 1 week</p>			
<p>Economics Standard Two 6-8a: Students will analyze the role of money and banking in the economy, and the ways in which government</p>	<p>Concepts: Interdependence</p>	<p>Essential Questions: How do spending, saving and production decisions affect a market economy?</p>	<p>Suggested Formative Assessments: Checks for understanding</p>

Standards Alignment	Unit Concept Big Ideas	Essential Questions Student Learning Targets	Assessments
<p>taxes and spending affect the functioning of market economies.</p>	<p><u>Big Ideas:</u></p> <p>A nation’s overall levels of income, employment, and prices are determined by the interaction of spending and production decisions made by all households, firms, government, and trading partners</p> <p>Because of interdependence, decisions made by consumers, producers, and government impact a nation’s standard of living.</p> <p>Market economies are dependent on the creation and use of money, and a monetary system to facilitate exchange.</p>	<p>How is money created in a market economy?</p> <p>How does our government’s taxation and spending policies affect our economy?</p> <p><u>Learning Targets:</u></p> <ul style="list-style-type: none"> ▪ Trace the flow of money in a market economy. ▪ Use a circular flow model to examine how money facilitates spending and saving by households and businesses, and to examine how government taxing and spending affect the funding of a market economy. ▪ Evaluate how banks’ loaning process creates money. ▪ Analyze how the Federal Reserve System acts as the central bank and its policies influence economic activity. ▪ Identify different types of taxes. ▪ Analyze how government taxation policies influence economic activity. 	<p>Think-Pair-Share</p> <p><u>Suggested Summative Assessments:</u></p> <p>Transfer task Rubrics Worksheets</p>

Charter School Unit Modification.

Guiding Questions

1. Why was this model unit of instruction selected as part of your schools' curricular submission?

This model unit of instruction was selected as part of Kuumba Academy's curricular submission because they are a part of the DE Social Studies Coalition. This unit allows students to develop their own mental map through the immersion of the various techniques and tools used.

Kuumba Academy is expanding its current charter to include students in grades 6-8 under the nationally recognized Expeditionary Learning Model. Within this framework for teaching and learning, the already proven practices at Kuumba Academy will be enhanced by the addition of a hands-on, project-based approach to teaching and learning. The units of instruction within the DE SS Coalition lend themselves well to an inquiry based curriculum.

This unit of instruction falls during the Fall Expedition of "Those Who Came Before Us" and "The First American: Kennewick Man and the Settlement of North America." Within this expedition, students will build a capacity for creating more in-depth mental maps that extend farther than locations familiar to them. Student will create a map of the Northwest region of America, including all essential map elements. The students will use these maps to better comprehend the possible travels of prehistoric man, along with building a point of reference as to where these events took place in relation to modern America and the rest of the world. Creating and reflecting on the maps will solidify understanding of Kennewick Man's life and his journey, developing mental images students can reference throughout the expedition.

2. What modifications have been made to the model unit of instruction to meet the specific needs of the student population your school serves?

No modifications have been made to this model unit of instruction. Imbedded into the unit are suggestions for differentiation, so the needs of all learners can be met through this unit as is.

3. What modifications have been made to the model unit of instruction that reflect the resources (human, time, building, technology etc.) available to your school?

No modifications have been made to this unit of instruction

4. Describe any other modifications that have been made to the model unit of instruction that will assist in the curricular review for your school.

No modifications have been made to this unit.

Delaware Model Unit

This unit has been created as an exemplary model for teachers in (re)design of course curricula. An exemplary model unit has undergone a rigorous peer review and jurying process to ensure alignment to selected Delaware Content Standards.

Unit Title: Building Global Mental Maps

Designed by: Rebecca N. Reed

District: Red Clay Consolidated School District

Content Area: Social Studies/Geography Standard 1a

Grade Level: 6

Summary of Unit

The standard addressed in this unit requires students to *demonstrate* mental maps of the world and its sub-regions. Each individual will develop a unique mental map. The only true assessment of a mental map is to monitor change and growth. The role of the teacher is to provide opportunities for students to use, correct, and build upon their personal mental map.

This unit exposes students to a variety of mapping techniques, types, and applications with an underlying purpose of building personal mental maps. The techniques, types, and applications are implemented using a world or global perspective. Once mastered, teachers can then apply the techniques, types, and applications to a more regionalized scale, while examining issues related to those regions.

This unit is comprised of five lessons that are scaffolded to build upon students' mental maps through exposure and varied learning modalities or styles. Evidence of a student's mental map is collected through the Performance Task, found in Stage 2 of this unit.

Teachers will collect a record of each student's mental map of the world *prior to initiating the unit*, and a second record will be collected at the conclusion of the unit.* The Performance Task is simple to administer but difficult to assess as mental maps continue to develop throughout our lifetimes and at varying degrees. This should be kept in mind when assessing a student's mental map in terms of quantity of characteristics and accuracy of location. This unit will provide students with the tools needed to build their personal mental maps well beyond the conclusion of instruction.

** Teachers should also consider collecting records of mental maps throughout an instructional period to compare or benchmark against the original mental map that was produced by the student.*

Stage 1 – Desired Results

(What students will know, do, and understand)

Delaware Content Standards

- **Geography Standard 1a 6-8:** Students will demonstrate mental maps of the world and its sub-regions which include the relative location and characteristics of major physical features, political divisions, and human settlements.

Big Idea

- Mental Mapping

From the Social Studies Clarifications:

At this grade level, what changes is an expansion of the areas covered by mental maps to sub-regions of the world beyond North America, and finally to the world as a whole. In other respects, there is no difference between the objectives and purposes of the 4-5 and 6-8 benchmarks. Once again, the level of detail of the mental map components for the world's sub-regions is similar to that of the United States. The [South American](#) continent provides an example. A mental map would recognize the long Andes mountain chain that runs across the north and down the west side of the continent, separated in Bolivia by a high plateau containing Lake Titicaca. To the east of the Andes lie the Guiana Highlands and Brazilian highlands, separated by the Orinoco and Amazon River systems. The southern Brazilian highlands are drained by branches of the Parana-Paraguay river system that terminates in the Río de la Plata. Inland from Buenos Aires lies the flat pampas and, to the south, the arid plateau of Patagonia. Climatically, most of South America east of the Andes experiences tropical weather—warm temperatures throughout the year with wet and dry seasons. To the west, from northern Peru to Central Chile lies the dry Atacama Desert. A major concept embedded in human adaptation to the natural environment is the role of altitude that modifies the tropical climate otherwise expected at low latitudes and allows raising mid-latitude crops in small micro-ecologies found at higher elevations. Argentina, Uruguay, and Chile are the only South American areas of temperate, mid-latitude climate. Chile is like the U.S. west coast, and Argentina and Uruguay like the eastern U.S. seaboard. South Americans live disproportionately in major cities. A mental map of the sub-region would include at a minimum Caracas, Rio de Janeiro, Sao Paulo, Buenos Aires, Montevideo, Santiago, Lima, and Bogotá.

Again, it must be stressed that while mental maps carry factual details, these are best learned in the context of examining issues related to those regions. For instance, the travels of [early explorers](#) can be traced and the diversity of findings made understandable. Alternatively, areas most likely to appeal to tourism could be hypothesized.

Familiarity with sub-regions allows speculation about future connections. How might the economies of Africa and South America or Africa and India be better linked? Is there a basis for trade (exchange) between these connections? What are the obstacles to greater economic unity among South American countries? Is the lack of interior rail connections across country borders a factor?

Unit Enduring Understandings

Students will understand that:

- Mental maps summarize differences and similarities about places. These differences and similarities lead to conflict or cooperation and the exchange of goods and ideas between peoples.
- Mental maps change as the scale moves from local to global. We know more about our home area than more distant places, and these differences affect how we feel and behave towards places that are distant versus those that are close.
- Mapped patterns are analyzed and used help solve societal problems.
- Maps can be used to distort or introduce bias into the information they portray.

Unit Essential Questions

How do personal mental maps effectively change and develop?

- What are mental maps? How can mental maps be created and used effectively?
- Why do maps have distortions?
- How have cartographers minimized distortions?
- When should a certain map projection be used over another?
- How can we help build our mental maps through visual association?

Knowledge and Skills

Students will know...

- Relative location of world regions and sub-regions.
- Characteristics (e.g., political, physical, human settlements) of world regions and sub-regions.

Students will be able to...

- Demonstrate how their personal mental maps have been expanded through instruction that focuses on gathering, extending and refining, and applying knowledge of characteristics essential for accurate mental maps.

Stage 2 – Assessment Evidence

(Evidence that will be collected to determine whether or not Desired Results are achieved)

Performance Task

Essential Question Measured by the Performance Task

- How do personal mental maps effectively change and develop?

Prior Knowledge	Before beginning this unit, your mental map of the world was different than it is now. Mental maps are personal and unique. Mental maps develop, grow, and change as we are asked to access or use our mental maps.
Problem	How can we effectively change and develop our mental maps? Prior to the start of this unit, you were asked to

	record your mental map of the world. Now you will record your present mental map so a comparison can be made.
Role/Perspective	As you record your present mental map, think about the activities that were part of this unit. Did you learn the location of new places? Can you identify and place more physical features "on" your mental map? What information, fact, or data did you learn that now is part of your mental map? How did the activities in this unit add to your mental map?
Product/Performance	Before starting this unit, you were asked to produce your mental map of the world. For this task, your current mental map of the world will be compared and evaluated for growth and accuracy.
Criteria for Exemplary Response	We all develop our personal mental maps at different rates and will continue to develop them throughout our lifetimes. Your teacher may ask you to produce another version in the future. The criteria for an exemplary response is always the same, by answering the essential question, "How do personal mental maps effectively change and develop?"

Rubric

Mental Maps				
This rubric is to be used to assess the growth of a student's mental map. The criteria listed below can be used as a guide for producing a mental map.				
	3	2	1	0
Map Elements	All essential map elements are demonstrated accurately.	Most essential map elements are demonstrated accurately.	Compared to the original mental map, a few more essential map elements are demonstrated accurately.	Original map had no or a few essential map elements, with little or no growth noted.
Relative Location	Locations of physical/cultural features are accurate and relative to other features.	Most locations of physical/cultural features are accurate and relative to other features.	Compared to the original mental map, a few more locations of physical/cultural features are accurate and relative to other features.	Original map had no or a few accurately placed physical/cultural features, with little or no growth noted.
Political Divisions	All major political divisions are identified accurately.	Most major political divisions are identified accurately.	Compared to the original mental map, a few more major political divisions are identified accurately.	Original map had no or a few major political divisions identified, with little or no growth noted.

Physical Features	All major physical features are identified accurately.	Most major physical features are identified accurately.	Compared to the original mental map, a few more major physical features are identified accurately.	Original map had no or a few major physical features identified, with little or no growth noted.
Human Settlements	All major human settlements are identified accurately.	Most major human settlements are identified accurately.	Compared to the original mental map, a few more major human settlements are identified accurately.	Original map had no or a few major human settlements identified, with little or no growth noted.

Above the Standard: 15 to 11
Meets the Standard: 10 to 5
Below the Standard: 4 to 0

Teachers are encouraged to repeat the Performance Task at a later date and repeat the Performance Task as new regions are introduced to students through the planned curriculum.

Student Self-Assessment and Reflection

When students are required to think about their own learning, to articulate what they understand and what they still need to learn, achievement improves.

– Black and William, 1998; Sternberg, 1996; Young, 2000.

How a teacher uses the information from assessments determines whether that assessment is formative or summative. Formative assessments should be used to direct learning and instruction and are not intended to be graded.

The Checks for Understanding at the end of each instructional strategy should be used as formative assessment and may be used as writing prompts or as small-group or whole-class discussion. Students should respond to feedback and be given opportunities to improve their work. The rubrics will help teachers frame that feedback.

An interactive notebook or writing log could be used to organize student work and exhibit student growth and reflection.

As the strategies used to create this unit are implemented, students can keep an outline map of the region being studied and add to the map as the unit progresses. With repeated exposure to and opportunities to work with maps, the more quickly and accurately mental maps will develop.

Stage 3 – Learning Plan

(Design learning activities to align with Stage 1 and Stage 2 expectations)

Lesson One – Tear Maps

Essential Questions

- What are mental maps?
- How can mental maps be created and used effectively?

Background

Differentiation allows students multiple options for taking in information, making sense of ideas, and expressing what they have learned. A differentiated classroom provides different avenues to acquiring content, to processing or making sense of ideas, and to developing products so that each student can learn effectively.

– Carol Ann Tomlinson, 2001

Before beginning this lesson, have students create a representation of their mental map of the world.¹ Tell students to give as much detail as possible. Explain that this map will be compared to a similar map that will be created at the end of the unit. Teachers should share the Performance Task and rubric with students prior to beginning this lesson.

After a brief mental mapping activity, students will work in groups of 3-4 students to create a construction paper tear map of the world. Students will receive instruction on the Essential Map Elements and place those elements on the map created by the group.

Instructional Strategies

Strategy 1: Gathering Information

Think-Pair-Share

Begin this lesson by asking students to create a definition of a mental map with a partner. Have students share their definitions.

To test the student definitions, tell students to close their eyes. Ask, “How many windows are in this room?” Ask, “How did you find the answer?” Accept responses that refer to visualizing the room and the windows. Adjust definitions as needed. Ask students to close their eyes again and ask, “How many windows are there in your bedroom?” Ask, “Which room was easier to visualize and recall the correct number of windows?” The expected answer is that students will recall more accurately the number of windows in their bedroom. Why? We are more familiar with places that we have more association with or exposure to. Tell students that this unit will help them to develop more accurate and detailed mental maps.

¹ All world maps should be removed or covered for this activity.

Check for Understanding

- ❖ What is a mental map? Explain why some of our personal mental maps more detailed than others.

Rubric

2 – This response gives valid definition with an accurate and relevant explanation of why personal mental maps vary.

1 – This response gives valid definition with an inaccurate, irrelevant, or no explanation of why personal mental maps vary.

Strategy 2: Gathering Information

Mnemonic

In order to help students remember the Essential Map Elements, share the mnemonic at [Handout 1-A](#).

Essential Map Elements

T – Title: What does the map represent?

O – Orientation: Often, world maps do not have a compass rose, and it is assumed that North is at the “top” of the map.

D – Date

A – Author or publisher

L – Legend or key

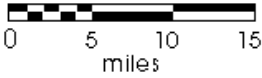
S – Scale

Scale can be represented in many ways. This example is from the University of Colorado at <http://www.colorado.edu/geography/qcraft/notes/cartocom/elements.html>. Distance or scale must always be indicated or implied, unless the audience is so familiar with the map area or distance is of such little relative importance that it can be assumed by the audience. Distance and scale can be indicated in a variety of ways on a map in **verbal, numeric, or graphic form**.

In using computer systems, the graphic form of representing scale is often preferred. With computers, maps are often drafted at different scales than they are printed. In using verbal or numeric scales, the cartographer must be certain that the map is printed at precisely the scale indicated. If a graphic scale is inserted in a digital map, it will always maintain its relative size with respect to the digital map no matter how it is printed.

Remember, scale varies significantly across the area of some maps. If this is true of yours, be sure to note the adjustments required.

Verbal, numeric, and graphic means
of representing scale

1 inch equals 1 mile 1:63,500 

SLC 4/98

Have students identify the Essential Map Elements from any map.

Check for Understanding

- ❖ What are the Essential Map Elements?
- ❖ What purpose do the elements serve?

Rubric

- 2** – This response gives valid description with an accurate and relevant purpose.
1 – This response gives valid description with an inaccurate, irrelevant, or no purpose.

Strategy 3: Extending and Refining Making Comparisons²

Have students complete [Handout 1-B](#), Directions and Map of the World, including the questions on the directions sheet.

Check for Understanding

- ❖ Why are individual personal maps unique? Explain your answer with an example.

Rubric

- 2** – This response gives valid explanation with an accurate and relevant example.
1 – This response gives valid explanation with an inaccurate, irrelevant, or no example.

Strategy 4: Application Cooperative Group Participation³

In this strategy, students should be divided into groups of no more than 4 students. Teachers can assign roles for this activity, such as materials manager, quality control manager, timekeeper, and presenter.

Materials needed:

- Glue sticks/glue
- Markers/colored pencils
- Large paper – 1 sheet per group
- Construction or copy paper – ideally 7 sheets of different colors per group

Each group is to tear (no scissors!) out the shape of each continent and glue the continents to the large paper. Have students label the continents and as many features as they can from memory (equator, prime meridian, cardinal directions, bodies of water, etc.). This activity should be done without the aid of maps of other geo-graphics.

Have the students present their maps to the other groups.

Optional: Have students use a rubric to evaluate maps from other groups. See [Rubric 1-C](#) for an example.

² Adapted from an activity from the Delaware Geographic Alliance, which can be accessed at: <http://www.udel.edu/Geography/DGA/Web2009/CurriculumMaterials/Asia/MentalMapExerciseDirections.doc>

³ Prince George's County (MD) has a brief guide to Cooperative Learning at: <http://www.pgcps.pg.k12.md.us/~elc/learning1.html>

Check for Understanding

- ❖ Why are the maps from each group different? In which ways are the maps the same?

Rubric

2 – This response gives valid differences with valid similarities.

1 – This response gives valid differences OR valid similarities.

Lesson Two – Map Projections

Essential Questions

- Why do maps have distortions?
- How have cartographers minimized distortions?
- When should a certain map projection be used over another?

Background

See [Handout 2-A](#) for background information on map distortions.

The most common distortions of maps are changes in scale, area, distance, and shape. Some maps have all distortions, some only a combination of distortions, but ALL map projections have some form of distortion. Because all maps have distortions, some map projections are preferred over others. The United States is often shown in a conic projection. A conic projection has minimal distortion of areas located in the mid-latitudes. Polar projections are often used for maps of Antarctica. For a more detailed explanation of map projections, read *Map Projections: From Spherical Earth to Flat Map* from the National Atlas, found at http://www.nationalatlas.gov/articles/mapping/a_projections.html.

This lesson examines distortion and the ways in which cartographers have tried to minimize distortion by creating maps of different projections. Students will look at four common map projections and identify the distortion or advantage of each map.

Instructional Strategies

Strategy 1: Gathering Information Making Predictions

Have students read [Handout 2-A](#). Have students work in pairs to make predictions about what happens when a 3-dimensional object (like a model of the Earth) is depicted as a 2-dimensional object.

Record students' predictions. Show students [Handout 2-B](#). Ask students to verify or modify their predictions.

Ask students to identify the four common types of distortions found on the "Bernie Map."

Check for Understanding

- ❖ Why do map distortions occur?
- ❖ What are the most common forms of distortions?

Rubric

- 2** – This response gives a valid reason with valid forms of distortion.
1 – This response gives a valid reason OR valid forms of distortion.

**Strategy 2: Extending and Refining
 Paired Predictions – Graphic Organizer**

Divide students into pairs. Provide Internet access to <http://egsc.usgs.gov/isb/pubs/MapProjections/projections.pdf> or distribute [Handout 2-C](#). Distribute [Handout 2-D](#) to each student. Provide time for students to complete the graphic organizer.

Answer Key to Handout 2-D – Graphic Organizer

Type of Projection/ Model	Distortion	Advantages	Disadvantages	Uses
Globe	None	No distortion	Difficult to carry and store. Small scale. Costly to update.	To find the shortest distance between two points.
Mercator	Distance Area Shape	Direction is true	Highly distorted at poles.	Navigation along the Equator.
Robinson	Distance Area Shape Direction	Some distance/scale is true.	Highly distorted at poles.	Often used in classrooms.
Conic	Distance Area Shape Direction	Distance is true on longitudes.	Area, shape, and direction distortions are minimized.	Used to show areas in the middle latitudes such as the United States.
Peters	Distance Area Shape Direction	Area distortion is minimized.	Has an unfamiliar "look." Not respected by many cartographers.	Sometimes to represent data. See Peters Map website for additional samples: http://www.petersmap.com/table.html

Check for Understanding

- ❖ Which map projection do you prefer? Explain your answer.

Rubric

- 2** – This response gives a valid choice with an accurate and relevant explanation.
1 – This response gives a valid choice with an inaccurate, irrelevant, or no explanation.

**Strategy 3: Application
 Map Evaluation**

After students have been exposed to the major types of distortion (distance, area, shape and direction), they will evaluate a map for its distortion and describe the best use for this map.

Distribute [A New Map-Handout 2-E](#). This application can be used as an assessment of students’ ability to apply knowledge to a new situation (transfer).

A short (5-second) video is available online that demonstrates how a Polar Map is made <http://www.amnh.org/education/resources/rfl/web/antarctica/polar.html>.

Check for Understanding

- ❖ When have you used a map? Explain which map projection is best for this application.

Rubric

2 – This response gives a valid use with an accurate and relevant explanation.

1 – This response gives a valid use with an inaccurate, irrelevant, or no explanation.

Lesson Three – Visual Association

Essential Question

- How can we help build our mental maps through visual association?

Instructional Strategies

Strategy 1: Gathering Information

Think-Pair-Share

This initial activity is designed to get students thinking about how boundaries are formed and the shapes that political regions have. Ask students how they know they have gone from one neighborhood or town to another. How do they know when they have left their town or city? Students may share such responses as seeing signs or business names that include the name of the town.

Explain to students that towns, states, and countries all have boundaries. Boundaries between countries are political boundaries. Some political boundaries are determined using physical features, like a mountain range or river. Other boundaries may seem random, but somewhere a legal political body determined the boundaries.

Distribute [Handout 3-A](#) and [Handout 3-B](#) to students. With colored pencils, have students draw over the straight political boundaries, and with another color, draw over political boundaries that are made from rivers and/or mountain ranges. Without a more detailed map or without an atlas, students will have many boundaries that are not marked with the colored pencils.

Ask students to summarize this activity by asking, “Where do you see more straight political boundaries? Where do you see more physical boundaries?”

Think-Pair-Share: What problems might occur when boundaries are based on physical features like a river?

(Answers might include: The course of a river can change. Tectonic action can shift the location of mountains and other landforms.)

Check for Understanding

- ❖ How are political boundaries determined? Give an example of a political boundary that uses physical features.

Rubric

2 – This response gives a valid explanation with an accurate and relevant example.

1 – This response gives valid explanation with an inaccurate, irrelevant, or no example.

Strategy 2: Extending and Refining**Visual Association⁴**

Explain to students that our mental maps of the world can be extended if we associate the political boundaries to objects. To demonstrate how this is done, distribute [Handout 3-C](#) to each student. Create an overhead of [Handout 3-C](#) for your use. As you read the poem on [Handout 3-D](#) to students, outline the Angel on the map. Then, have students label each of the countries using [Handout 3-E](#) as a guide.

Check for Understanding

- ❖ Demonstrate your mental map of the Middle East region. Label as many countries as you can.

Rubric

2 – Students can produce an outline of the Middle East region and label countries.

1 – Students can produce an outline of the Middle East region, but are unable to label the countries.

Strategy 3: Application**Groups/Modified Jigsaw**

Divide students into heterogeneous groups. Five or more groups would be best for this strategy. Distribute maps of a single continent to each group. The following continent maps are included in this unit:

- [Handout 3-B – Africa](#)
- [Handout 3-F – Asia](#)
- [Handout 3-G – Europe](#)
- [Handout 3-H – North America](#)
- [Handout 3-I – South America](#)

Provide colored pencils. Ask groups to identify shapes that they see in each continent. Ask if they see any shapes that will help them to remember the continent itself.

For example:

- Africa – looks like a giant pork chop
- Italy – resembles a boot
- China – a profile of a rooster
- Cuba – an upright vacuum cleaner, Hispanola – a “dust buster” and the remaining islands are crumbs that the vacuum and handheld will pick up.

Do not give students too many examples as they are to brainstorm and discuss the shapes in their groups. When completed, have each group share their ideas. If possible, have the students draw the shapes onto a poster-size world map.

Check for Understanding

⁴ This strategy is based on a lesson from the Delaware Geographic Alliance and can be found at <http://www.udel.edu/Geography/DGA/Web2009/CurriculumMaterials/Asia/AngelOfTheEast.pdf>.

❖ How can we help build our mental maps through visual association? Explain your answer with examples.

Rubric

2 – This response gives a valid explanation with an accurate and relevant example.

1 – This response gives a valid explanation with an inaccurate, irrelevant, or no example.

Lesson Four – Physical Maps

Background

Geography Standard One requires students to demonstrate the characteristics and location of physical features. This lesson requires students to locate different physical features of the world. As students continue studying geography through a regional analysis, additional physical features of the region being studied should be taught.

Essential Question

- Where are the major oceans, rivers, mountains, and urban settlements located?

Instructional Strategies

**Strategy 1: Gathering Information
Location of Physical Features**

Copy [Handout 4-A](#) and [Handout 4-B](#) for each student. Have students use an atlas or online source, such as those provided below, to locate major physical features in the world’s sub-regions.

National Geographic’s April 2010 online blog has an interactive river map at:

<http://ngm.nationalgeographic.com/2010/04/water/water-animation>

Have students locate the major rivers using this source or other geographic sources.

Identify and label the following 16 major rivers:

<i>Mississippi</i>	<i>Yellow</i>	<i>Parana</i>
<i>Danube</i>	<i>Darling</i>	<i>Congo</i>
<i>Yangtze</i>	<i>Indus</i>	<i>Brahmaputra</i>
<i>Murray</i>	<i>Amazon</i>	<i>Paraguay</i>
<i>Colorado</i>	<i>Nile</i>	
<i>Volga</i>	<i>Ganges</i>	

Have students locate the following 8 mountain ranges:

<http://maps.howstuffworks.com/world-mountain-ranges-map.htm>

<i>Rockies</i>	<i>Ural</i>
<i>Alps</i>	<i>Great Divide</i>
<i>Himalaya</i>	<i>Andes</i>
<i>Appalachian</i>	<i>Atlas</i>

Have students locate the 5 oceans: <http://www.worldatlas.com/aatlas/infopage/oceans.htm>

Atlantic
Pacific
Indian

Check for Understanding

- ❖ Identify major rivers, mountain ranges, and oceans using online map quizzes at <http://www.ilike2learn.com/>.

Strategy 2: Extending and Refining Visual Association⁶

Students will create a 3-D map of the world, highlighting physical features. You may want students to work in heterogeneous groups of 3-4 students.

This strategy may take several class periods depending on the amount of detail required.

Distribute one copy of [Handout 4-C](#), 3-D Map Instructions, per student.

Check for Understanding

- ❖ What is the relationship between physical features and human settlements? Explain your answer with an example.

Rubric

2 – This response gives a valid relationship with an accurate and relevant example.

1 – This response gives a valid relationship with an inaccurate, irrelevant, or no example.

Strategy 3: Application

For this strategy, the best application of “demonstrating mental maps” is to have students assess either their own maps made or assess others. A quantitative rubric has been provided. See [Handout 4-D](#), Physical Map Rubric.

Materials

You may substitute some of these. Gather materials prior to the lesson and divide the sand, beans, rice, peas, etc., for each group of students into the small paper cups or plastic bags.

Note the amount listed is the total quantity for that item.

- 12 x 18 colored paper (for base map) one sheet per student
- 9 x 12 sheets of colored paper (variety of colors)
- Small paper cups (for the beans, peas, rice, sand, etc.)
- Glue
- Scissors
- **Atlases or online access**
- Sand (~ 2 cups)
- Pinto beans (or other brown beans) ~ 2 cups
- Rice (white or brown) ~ 1 cup
- Dried green peas ~ 1 cup
- Blue yarn ~1 skein
- Cotton balls 1 per student
- Plain paper for labels for the physical features (or 2-3 address labels per student which they can cut into small strips)

⁵ In 2000, the International Hydrographic Organization created the fifth and newest world ocean—the Southern Ocean—from the southern portions of the Atlantic Ocean, Indian Ocean, and Pacific Ocean. The new Southern Ocean completely surrounds Antarctica.

⁶ This strategy is adapted from “3D Map of South America,” by Cynthia A. Baker, Indian River School District http://www.sscde.org/lessons/files/G_68_LES_3DMapofSouthAmerica.pdf

Lesson Five – Mapping Data

Background

Demography is the study of the characteristics of human populations, such as size, growth, density, distribution, and vital statistics. For this strategy, students will explore the types of demographic data that is available and how choropleth and cartograms are used to display demographic data in map form. Students will also look at how other data, such as climate and elevation data can also be mapped.

Essential Question

- How can mapping data help us to analyze the data?

Instructional Strategies

Strategy 1: Gathering Information Brainstorming – Bubble Map/Webbing

Explain to students that data needs to be sorted, categorized, and compared in order to be analyzed. One way to analyze data is by mapping the data. Demography, a special sub-group of data, is the study of the characteristics of human population, such as size, growth, density, distribution, and vital statistics.

Have students look through their textbooks or online at fact websites like CIA World Factbook at <https://www.cia.gov/library/publications/the-world-factbook/index.html> for data that could be mapped. Using the broad categories of people, economy, geography, communications, and transportation have students complete a web or other graphic organizer that shows the different types of data that is collected and can be mapped.

Provide one copy of [Handout 5-A](#) for each student. Have students share their webs.

Answers may include:

- People – male/female, birth rate, death rate, growth, ages
- Economy – income, import/export amounts, GDP, labor
- Geography – rainfall, temperature, elevations, renewal water, fresh water, irrigation
- Communications – radio, television, internet, newspapers, telephones, cell phones
- Transportation – airlines, railways, roadways, waterways, pipelines

Check for Understanding

- ❖ Why is data mapped? Give an example to support your answer.

Rubric

2 – This response gives a valid reason with an accurate and relevant example.

1 – This response gives a valid reason with an inaccurate, irrelevant, or no example.

Strategy 2: Extending and Refining Mapping Data

One way to display data in mapped form is by using a choropleth map. The Population Reference Bureau has a short description of choropleth mapping at: http://www.prb.org/pdf/ChoroplethMap_Instructions.pdf.

Show students [Handout 5-B](#). Explain that the prices of Big Macs are collected and published periodically by *The Economist* magazine. One way to analyze the Big Mac data is to sort the prices from highest to lowest. Another way is to create a choropleth map of the data.

Distribute [Handout 5-C](#) and [Handout 5-D](#) to each student. With colored pencils, have students create a choropleth map of the Big Mac data. Students should use colors or shading that gradually changes in color. The greater the density of color, the greater the density or value represented.

When completed, ask students to draw conclusions about the mapped data.

- Where are Big Macs with the highest prices sold? (Above the Equator, Europe, north of 40N, etc.)
- Where are the Big Macs with the lowest prices sold? (Mostly in Asia)
- Where do we not have a lot of data? Why?

[Handout/Answer Key 5-E](#) has been provided. This map was created using Microsoft Paint.

Teacher Tip: Any data can be used. A choropleth map using any world or regional map can be substituted for this strategy.

Check for Understanding

- ❖ How can mapping data help us to analyze the data? Give an example to support your answer.

Rubric

2 – This response gives a valid explanation with an accurate and relevant example.

1 – This response gives a valid explanation with an inaccurate, irrelevant, or no example.

Strategy 3: Application Cartograms

Provide students with [Handout 5-F](#) and have them follow the instructions. Cartograms are visual ways of displaying statistical geographic information. They are a hybrid of a graph and a map. Because of their visual nature, these charts make it easier for students to understand statistical geographical data.

Share with students that cartograms are chart maps that present statistical information. On a cartogram, sizes of geographic areas are changed to show the statistical information. For example, on a cartogram about rainfall, an area that gets more rain would be bigger than one that gets less rain.

Show students different cartograms that have been created. Worldmapper.org has over 600 different cartograms to share with students.

http://www.worldmapper.org/textindex/text_index.html

Check for Understanding

- ❖ How can mapping data help us to analyze the data? Give an example to support your answer.

Rubric

2 – This response gives a valid explanation with an accurate and relevant example.

1 – This response gives a valid explanation with an inaccurate, irrelevant, or no example.

Resources

Tomlinson, Carol A. *How to Differentiate Instruction in Mixed-ability Classrooms*. Alexandria, Va.: Association for Supervision and Curriculum Development, 2001. Print.

Mulcahy, Karen A.; Clarke, Keith C., "Symbolization of Map Projection Distortion: A Review", *Cartography and Geographic Information Science*, magazine, July 1, 2001 found at: <http://www.geog.ucsb.edu/~kclarke/Papers/mulacahyclarkecagis.pdf>

Tschirren, Bernard, Honours Research Proposal on Simulating the Appearance of Hair in a Realtime Facial Animation System. Found at: <http://facestyler.btschirren.net/html/index.html>

Peters, Arno, website The Peters Map <http://www.petersmap.com/table.html>

National Geographic printable maps: <http://www.nationalgeographic.com/resources/ngo/education/xpeditions/atlas/>

National Geographic Geography Games: <http://kids.nationalgeographic.com/kids/games/geographygames/>

Differentiation

- Stage 2 and 3 allow students to demonstrate understanding with choices, options, and/or variety in the products and performances without compromising the expectations of the Content Standards.
- Instruction is varied to address differences in readiness, interest, and/or learning profiles.
- Accommodations and differentiation strategies are incorporated in the design of Stage 2 and 3.

Technology Integration

The ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information

8th Grade Technology Literacy – the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st Century (SETDA, 2003)

National Atlas Project: <http://www.nationalatlas.gov/natlas/Natlasstart.asp>

National Geographic Xpeditions <http://www.nationalgeographic.com/resources/ngo/education/xpeditions/atlas/>

National Geographic Geography Games: <http://kids.nationalgeographic.com/kids/games/geographygames/>

Online Geography features identification games: I Like 2 Learn <http://www.ilike2learn.com/>

WorldMapper.org – cartogram website http://www.worldmapper.org/textindex/text_index.html

Handout 1-A

Essential Map Elements

High-quality maps always contain essential map elements that help the reader understand and correctly interpret the information displayed.


At a minimum, all maps should have:

- Title
- Orientation (or Compass Rose)
- Date
- Author
- Legend (or Key)
- Scale (or Distance)

Handout 1-B

Mental Mapping

On the world map provided, locate and identify the following:

1. Label the United States of America (USA).
2. Represent your present location by drawing a happy face there. 
3. Draw and label the Equator.
4. Label all seven continents (Africa, Antarctica, Australia, Asia, Europe, North America, and South America).
5. Label a place you would like to visit with a plus sign (+).
6. Place a star (☆) on the furthest place from your present location you have visited.
7. Add a symbol in the legend to represent mountains. Using your symbol for mountains, locate major mountain ranges.
8. India and China have large populations. Label them on the map.
9. Saudi Arabia's oil is important to the world. Label Saudi Arabia.
10. Mount Everest is the highest point on Earth (8,848 m or 29,029 ft). Place a triangle (△) on the location of Mount Everest.
11. Label the Pacific Ocean and Atlantic Ocean.
12. Label one important river system on each continent.

Compare your map to the maps created by your fellow students. In what way is your map similar to other student maps? In what way is your map different? Why do you think every map is unique?

Handout 1-C

Rubric

Were the following features and locations on the map?

Continents:

- ___ All seven continents represented
- ___ Spelling of continents is correct
- ___ Relative size and location of continents

Essential Map Elements:

- ___ Title
- ___ Orientation
- ___ Date
- ___ Author(s)
- ___ Legend
- ___ Scale or distance

Other features:

- ___ Oceans labeled correctly
- ___ Physical features labeled correctly (mountains, deserts, rivers, lakes, etc.)
- ___ Political divisions labeled correctly (countries, states, sub-regions)

One thing our group really liked about your map was...

One thing your map had that our map did not was ...

Handout 2-A

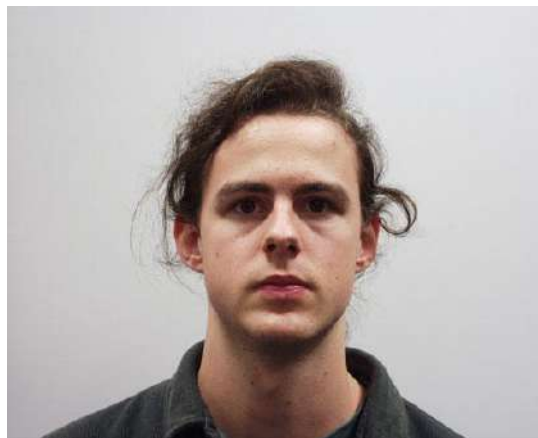
All Maps Have Distortion

"Cartographers have been portraying our globe on flat surfaces for approximately 2,000 years (Snyder 1993). The results have been far from perfect. It is impossible to depict rounded objects, such as the globe, on flat surfaces with complete fidelity. Thus, all maps are flawed in some way. The somewhat flawed and flattened geospatial products that result take forms such as maps printed on paper, virtual maps on computer screens, or virtual maps in computer databases. These flat map products cannot be true representations of our globe.

As the globe is flattened, areas may expand or contract, distances may change, and angles may be bent out of shape. The amount and types of distortion introduced may be controlled through the selection of appropriate map projections. Choosing the best projection for a map or map product is a task that has haunted cartographers for ages. The secret lies in choosing an appropriate projection that will allow the final product, in whatever form, to retain the most important properties for a particular use. Cartographers have measured, categorized, and organized various distortion characteristics resulting from the transformation of the globe to the flattened map. The most common types of distortion that are measured include **changes in scale, distance, area, and [shape].**"

From: Mulcahy, Karen A.; Clarke, Keith C., "Symbolization of Map Projection Distortion: A Review", *Cartography and Geographic Information Science*, magazine, July 1, 2001

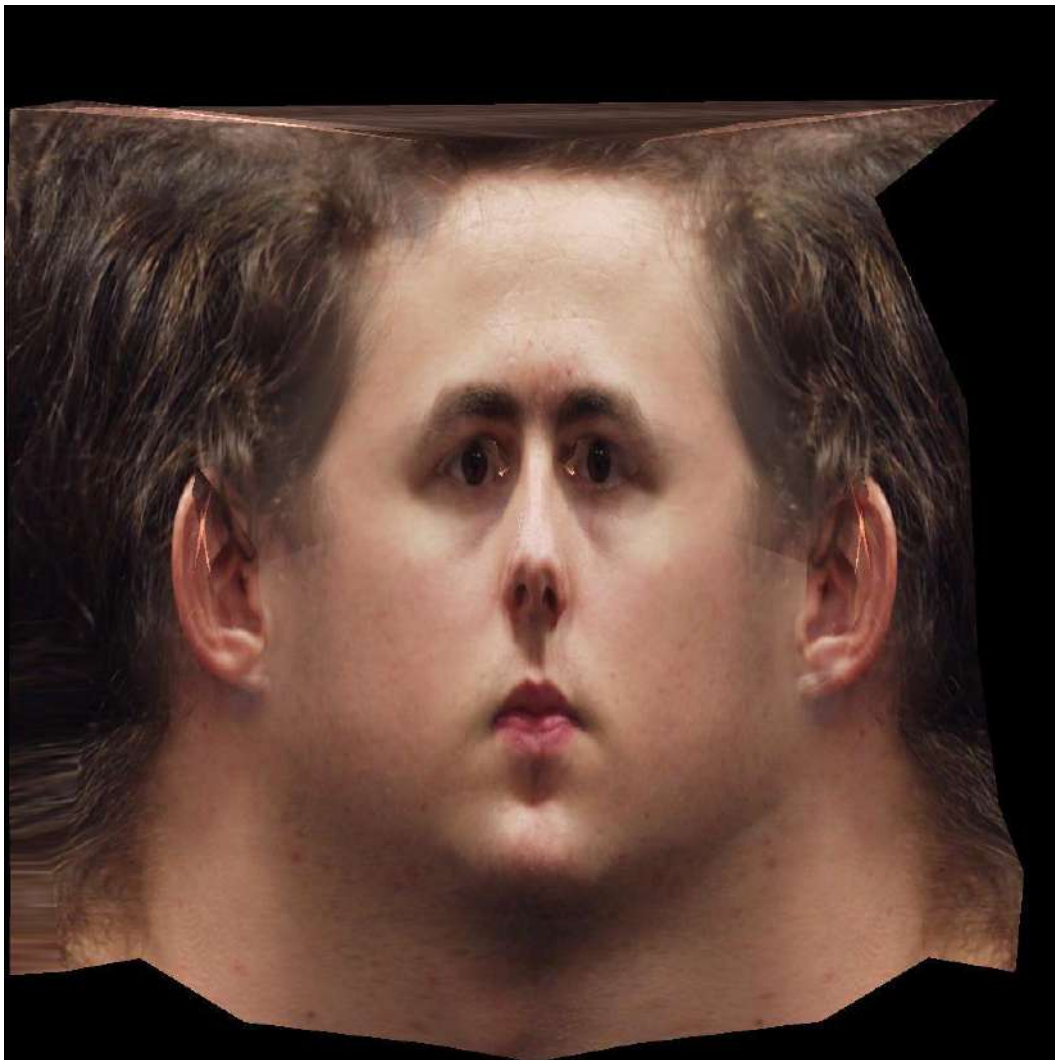
Think about taking a three-dimensional object, like a grapefruit or basketball, and flattening it so you can see the entire object without turning it. What would happen to the object? How difficult would it be to peel an orange so that the peel remains in one piece? This is what happens when you take a model of the Earth, a globe, and try to show the Earth as a flat 2-dimensional object.



This is what Bernie looks like without distortion.

What would Bernie look like if we could make him into a 2-dimensional map? What types of distortion would you see?

Handout 2-B



Handout 2-C

Map Projections

Adapted from <http://egsc.usgs.gov/isb/pubs/MapProjections/projections.pdf>

A map projection is used to portray all or part of the round Earth on a flat surface. This cannot be done without some distortion.

Every projection has its own set of advantages and disadvantages. There is no "best" projection.

The mapmaker must select the one projection that is best suited to the purpose for the map, reducing distortion of the most important features.

Mapmakers and mathematicians have devised almost limitless ways to project the image of the globe onto paper. Scientists at the U.S. Geological Survey have designed projections for their specific needs—such as the Space Oblique Mercator, which allows mapping from satellites with little or no distortion.

This document gives the key properties, characteristics, and preferred uses of many historically important projections and of those frequently used by mapmakers today.

The Globe

Directions – True

Distances – True

Shapes – True

Areas – True

Great circles – The shortest distance between any two points on the surface of the Earth can be found quickly and easily along a great circle.

Disadvantages:

- Even the largest globe has a very small scale and shows relatively little detail.
- Costly to reproduce and update.
- Difficult to carry around.
- Bulky to store.



Mercator

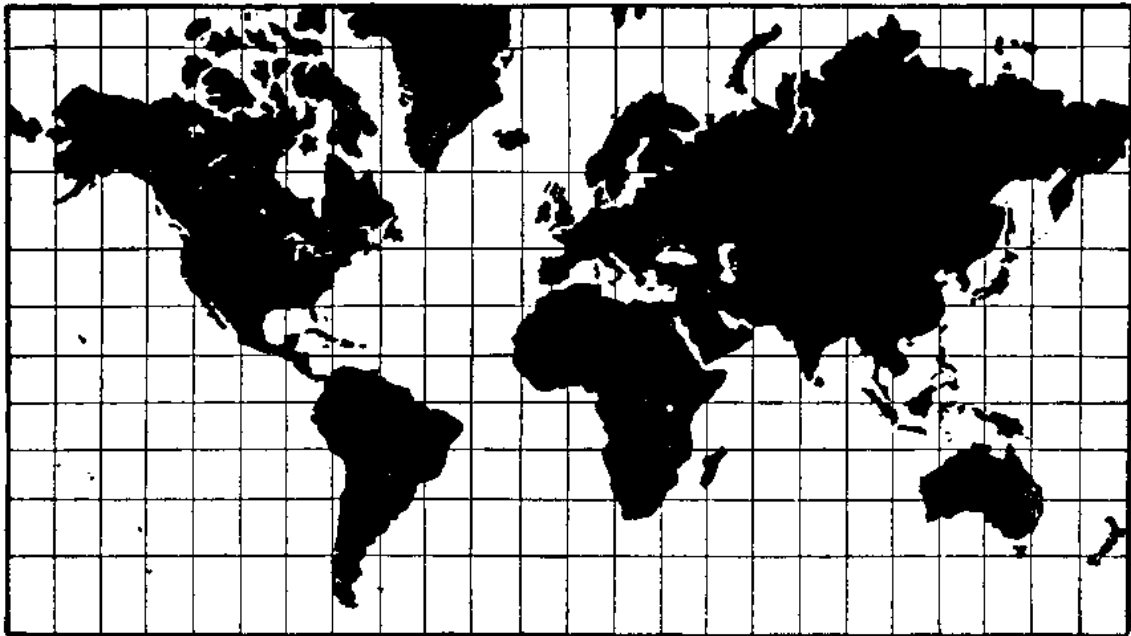
Used for navigation or maps of regions near the Equator. Any straight line on the map is projected as true. **Directions** along a single line are true between *any* two points on map, but that line is usually *not* the shortest distance between points.

Distances are true *only* along Equator, but are reasonably correct within 15° of Equator; special scales can be used to measure distances along other parallels (latitudes). Two particular parallels can be made correct in scale instead of the Equator.

Areas and shapes of large areas are distorted. **Distortion** increases away from Equator and is extreme in polar regions. A Mercator map is **often used for USGS topographic maps**.

Equator and other parallels are straight lines (spacing increases toward poles) and meet meridians (longitudes that are equally spaced straight lines) at right angles. Poles are not shown.

Presented by Mercator in 1569.



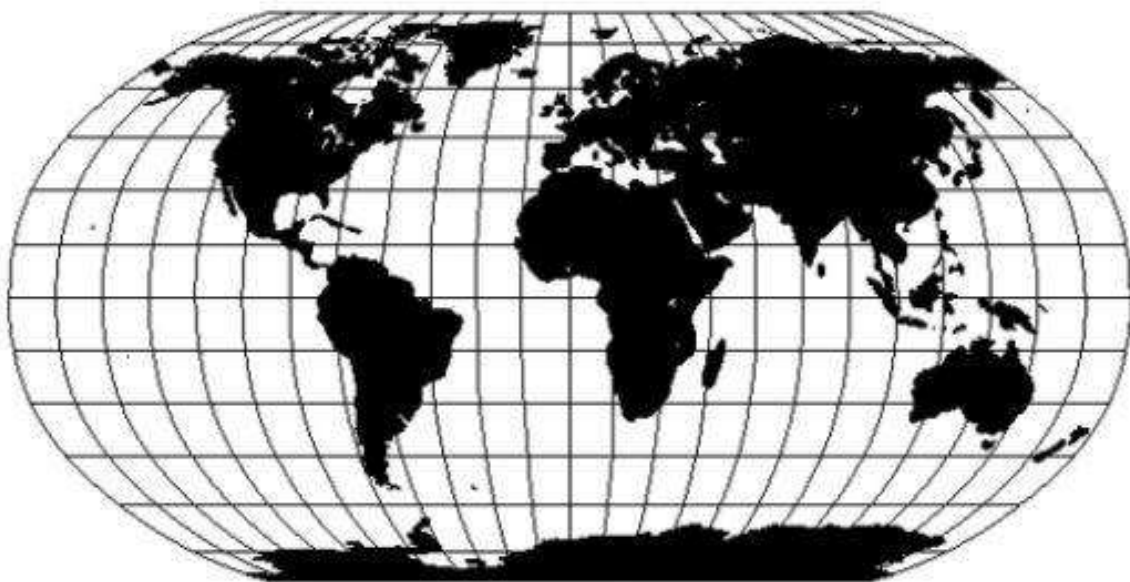
Robinson

The Robinson map was specifically created in an attempt to find a good compromise to the problem of readily showing the whole globe as a flat image. The Robinson map has a better balance between **size and shape** of high-latitude lands than in Mercator map. Russia, Canada, and Greenland are truer to size, but Greenland compressed.

Directions are true along all latitudes and along central longitudes. **Distances** are constant along Equator and other latitudes, but scales vary. **Scale** is true along 38° N & S, constant along any given latitude, and the same along North & South latitudes from the same distance from the Equator. **Distortion**: All points have some. Very little distortion along the Equator and within 45° of center. Greatest distortion occurs near the poles.

Used in *Goode's Atlas*, adopted for *National Geographic's* world maps in 1988, appears in growing number of other publications, may replace Mercator in many classrooms.

Presented by Arthur H. Robinson in 1963.



Conic

Used in atlases to show areas in the middle latitudes. Good for showing regions within a few degrees of latitude and lying on one side of the Equator. Conic maps are often used to show areas of the United States.

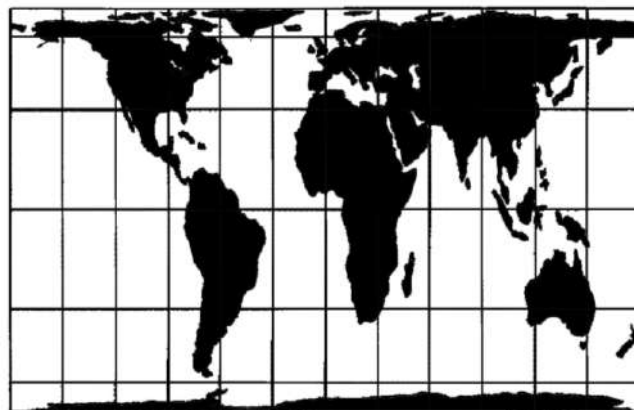
Distances are true *only* along all longitudes and along one or two standard latitudes. **Directions, shapes,** and **areas** are reasonably accurate, but **distortion** increases away from standard latitudes.

The first version of a conic map may have been by Ptolemy, in 150 A.D.



Peters

A Peters map **has all distortions** but minimal distortion of area. Arno Peters, German historian and journalist, called a press conference in 1973 to announce his "new" map projection that treated each country fairly by representing area accurately. Most cartographers do not support the Peters map, because they feel it does not represent the science of cartography. However, Peters maps are used to **represent data**. The map below is a Peters map.



Name: _____

Handout 2-D

Graphic Organizer

Use *Map Projections* from the U.S. Geological Survey (USGS) to complete the chart.

Type of Projection/Model	Distortion	Advantages	Disadvantages	Uses
Globe				
Mercator				
Robinson				
Conic				
Peters				

Which projection do you prefer? Why?

Handout 2-E

A New Map

Now that you have learned about a few different map projections and map distortions, you are ready to apply your knowledge to a new situation.

Use the map below to answer the questions that follow.



What map distortion(s) does this map have?

How might this map be used? Explain why this is the best map projection to use.

Handout 3-A

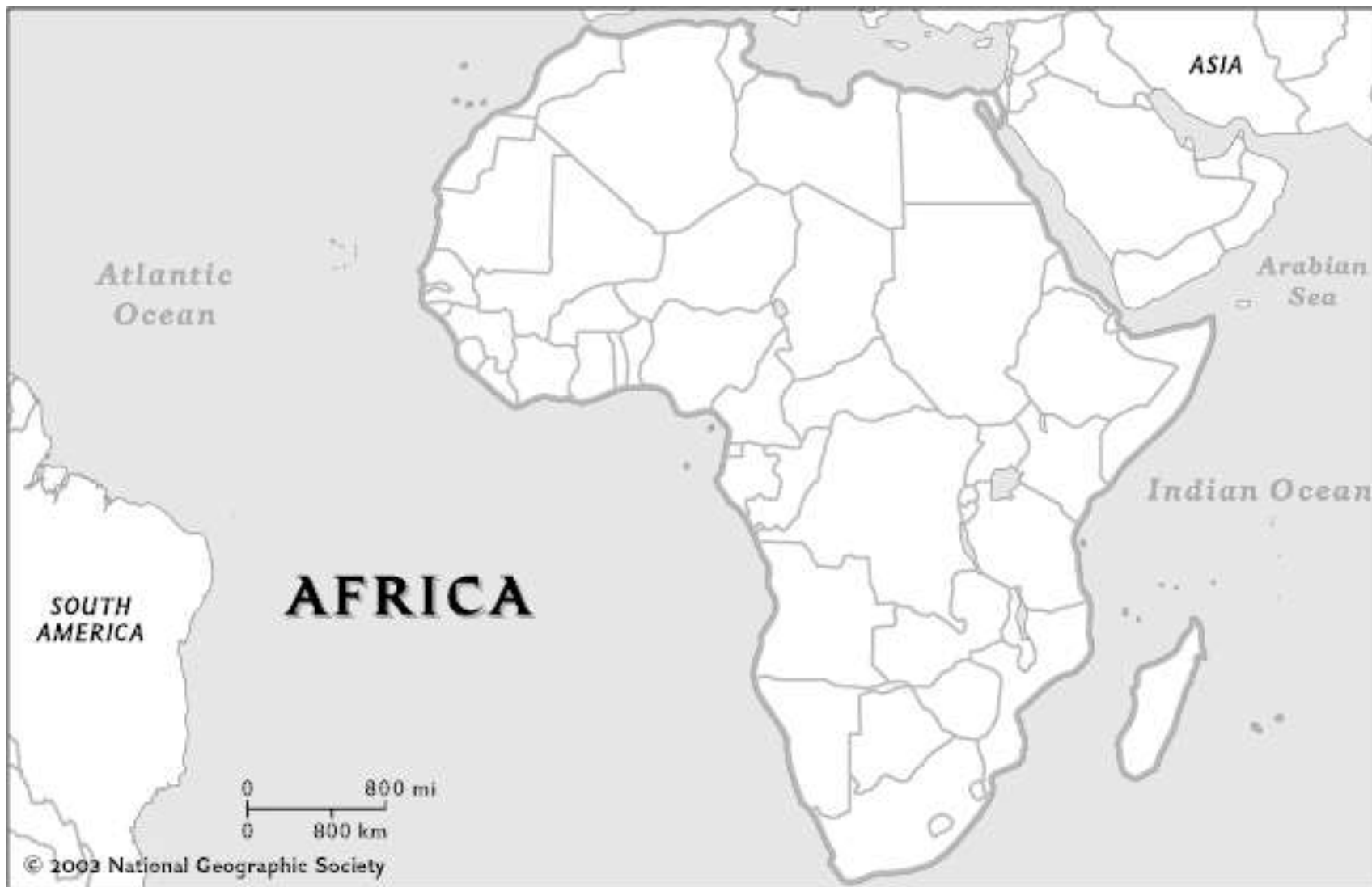
Africa Political/Physical



Africa Physical – Africa Political – <http://geology.com/world/africa-physical-map.shtml>

Handout 3-B

Africa Political Map



Handout 3-C

Middle East Region Political/Physical Map

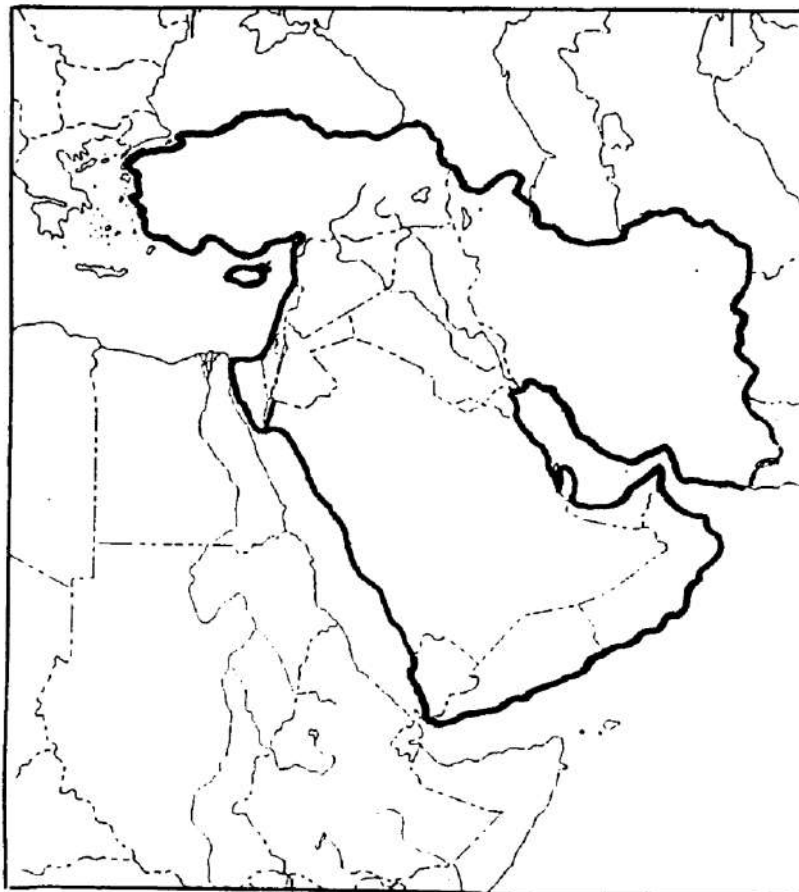


The Angel of the East

THE ANGEL OF THE EAST

by
Rebecca Scott

If you could look east
 across the United States,
 over the Atlantic Ocean and
 the Mediterranean Sea
 to a place between
 Asia, Africa and Europe.
You might see an angel --
 an angel in the east --
 resting on a sea of blue.
Her head hangs heavily,
 bowed towards her chest
 as she holds her hands
 together in prayer
 facing west.
A tear has fallen
 from her cheek.
Her heart aches;
 the heart of three religions.
She would like to be
 the angel for all people,
 but it seems remote
 on this southwest peninsula.
She is battle-worn
 and war-torn,
 this angel in the east --
 praying someday for
 a new world order and peace.



Handout 3-E

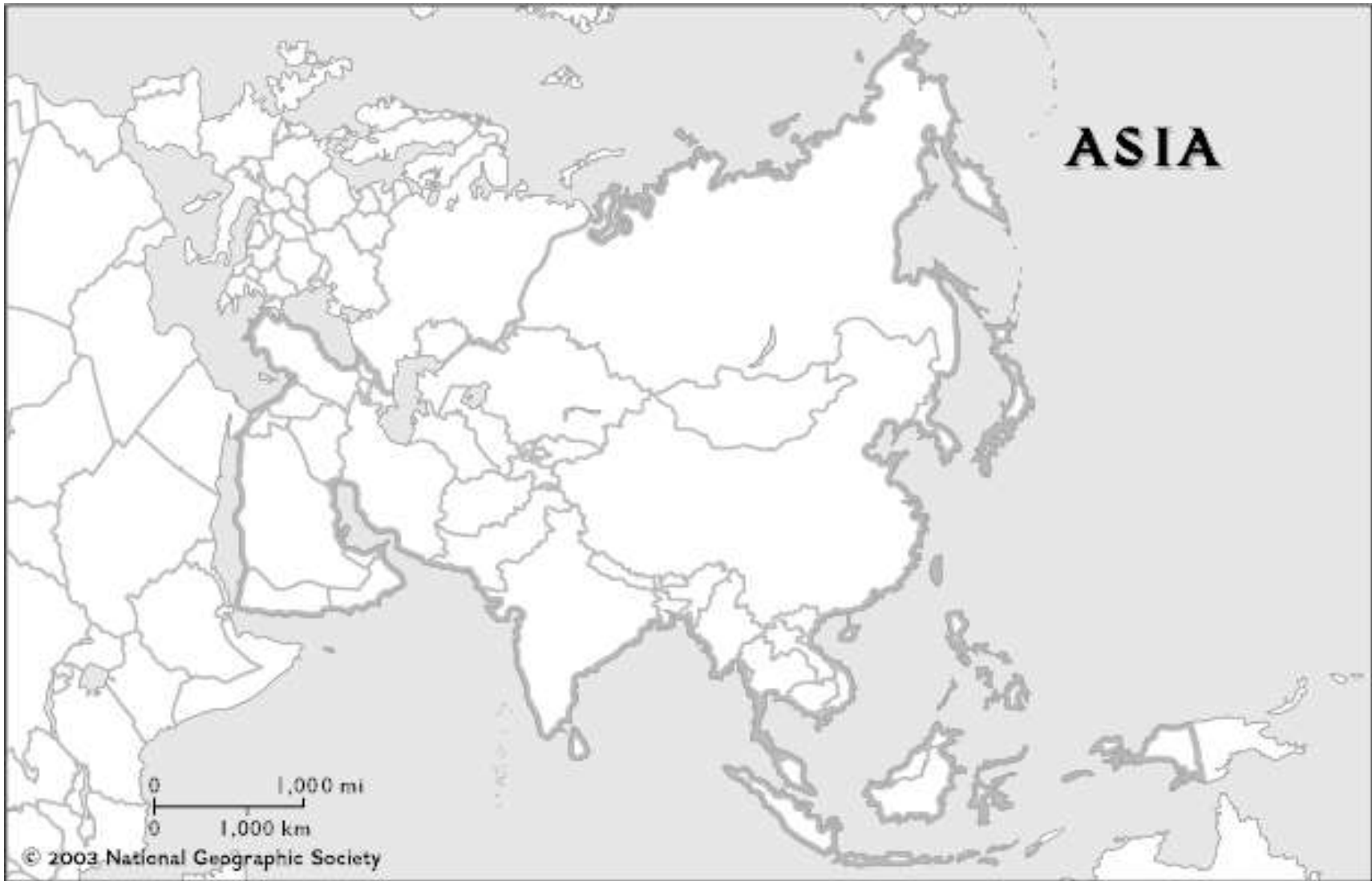
The Angel of the East

Directions: Using your map (Handout 3C – Middle East Region Political/Physical Map), label each of the political regions those make up "The Angel of the East."

ANGEL'S HEAD	Turkey (her face, looking down is the Taurus Mountains); the northern coast is her hair flowing back.
HER TEAR	The island of Cyprus
CHEST	Syria
RIGHT SHOULDER	Lebanon
RIGHT ARM	Israel
LEFT SHOULDER	Iraq
LEFT ARM	Jordan
HANDS IN PRAYER	Sinai Peninsula
FLOWING GOWN	Saudi Arabia (Arabian Peninsula)
BOTTOM OF GOWN	
TRIMMED IN LACE	Yemen, Oman, United Arab Emirates, Qatar
TWO BUTTONS AT	
BACK OF GOWN	Kuwait (at the upper part); Bahrain (loose button)
WINGS	Iran
HER HEART	Jerusalem

Handout 3-F

Asia Political Map



Handout 3-G

Europe Political Map



North America Political Map



South America Political Map



Handout 4-A

Lesson 4 – Physical Features

Identify and label the following 16 major rivers:

Amazon
Brahmaputra
Colorado
Congo
Danube
Darling

Ganges
Indus
Mississippi
Murray
Nile
Paraguay

Parana
Volga
Yangtze
Yellow

Identify and label the following 8 mountain ranges:

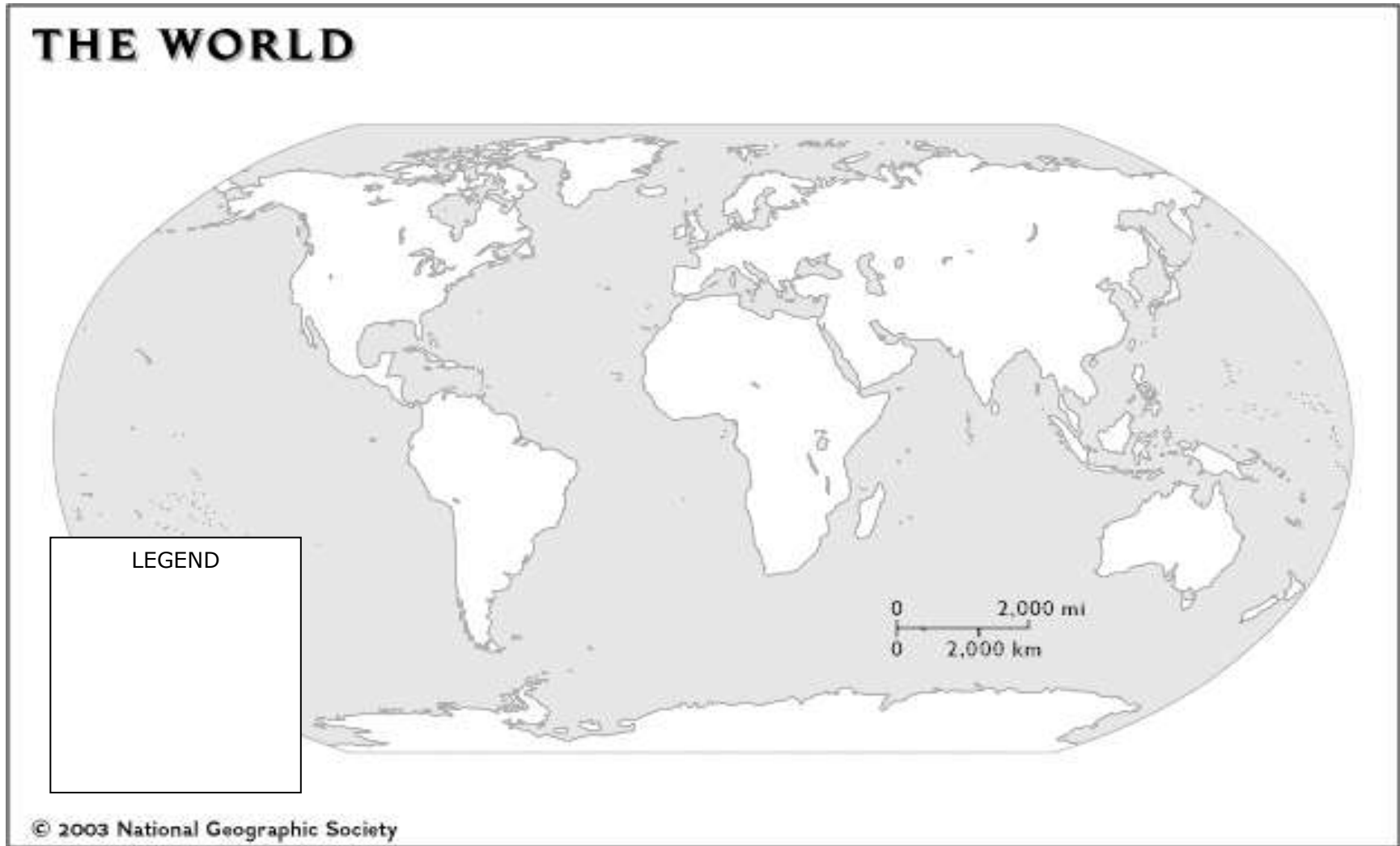
Alps
Andes
Appalachian
Atlas

Great Divide
Himalaya
Rocky
Ural

Identify and label the following 5 oceans:

Arctic
Atlantic
Indian
Pacific
Southern

The World Map



Name: _____

Date: _____

Handout 4-C

3D Map of the World

Use the following materials to create your three-dimensional map of the world:

First, create an outline map of the continents of the world. This will become your base map for this project.

Place a check by each item when you have added it your map.

_____ **Mountains:** Cut long, narrow strips of brown paper. Fold them like a paper fan. Unfold them and place where the 8 major mountain ranges are located.

_____ **Tropical Rainforest:** Use green paper, cut in rectangles, to represent the tropical rainforest regions. Fold the paper like a paper fan. Along the folded edges, make slash cuts. Unfold the paper and lift up the slash cuts so they are standing up to represent trees. Major tropical rainforests are located in South America, central Africa, and Southeast Asia.

_____ **Rivers:** Cut blue yarn and place it at the source of the 16 major rivers and have them end at the mouth of the rivers.

_____ **Deserts:** Spread glue on the desert areas and sprinkle with sand. Major deserts include: Great Basin/Sonora, Atacama, Sahara, Kalahari, Arabian, Gobi, and Great Victoria.

_____ **Grassland:** Cut green paper into circles or ovals and draw crisscrosses on it to represent the grasslands of the world. Large grassland areas include: Great Plains, Canadian Prairie, Mato Grosso, Pampas, African Savannah, Eurasian Steppe, and Australian Grassland.

_____ **Lakes:** Cut circles of blue paper and glue it to the map to represent these lakes: Caspian Sea, Great Lakes, Lake Victoria, Aral Sea, Great Bear Lake, Great Slave Lake, and Lake Tanganyika.

_____ **Major Cities:** Although cities are not physical features, their location is often related to physical features. Use brown beans to represent the 10 largest cities (est. 2005): Tokyo, Japan; Mexico City, Mexico; Seoul, South Korea; New York City, US; Sao Paulo, Brazil; Mumbai, India; Dehli, India; Los Angeles, CA US; Shanghai, China; and Jakarta, Indonesia.

_____ **Oceans:** Label the 5 oceans of the world.

_____ **Map elements:** add the following items to your map: title, orientation, date, author(s), and legend.

Map Author(s): _____

Map Evaluator(s): _____

Handout 4-D

Physical Map Rubric

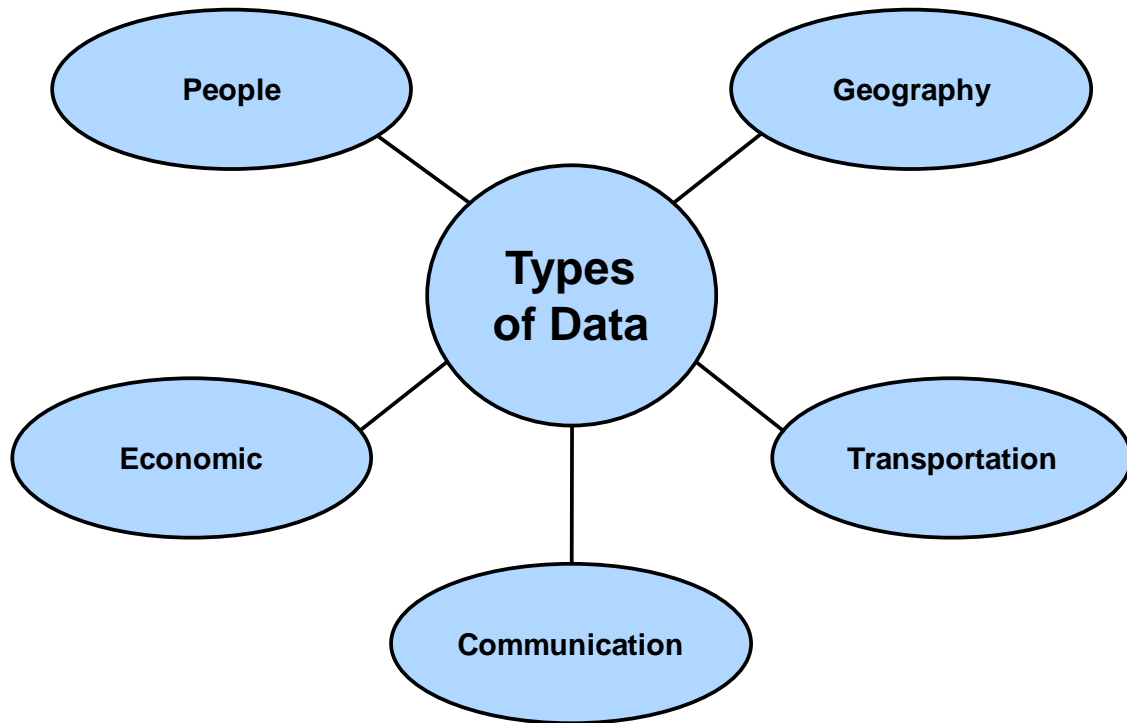
Award up to the maximum number of points for each characteristic or feature:

Characteristic/Feature	POINTS	
	Maximum Possible	Points Earned
Continents – All continents shown on the map with good relative location.	7	
Mountains – All 8 major mountain ranges shown.	8	
Tropical Rainforests – 3 rainforests of South America, Africa and southeast Asia are shown	3	
Rivers – All 16 rivers are shown on the map.	16	
Deserts – All 7 deserts are shown on the map.	7	
Grasslands – All 7 large grassland areas are shown on the map.	7	
Lakes – All 7 large lakes are shown on the map.	7	
Major Cities – All 10 large cities are shown on the map.	10	
Oceans – All 5 oceans are labeled properly.	5	
Map Elements – All 5 map elements are on the map. Award one extra point if the map states that it is “Not to Scale.”	5	
Total points out of 75 possible points		
Comments: On the back write comments and give suggestions to the authors of the map. What did you like about this map? What is one suggestion you would make that would improve this map?		

Handout 5-A

Mapping Data

What data or facts are available for mapping?



Handout/Visual 5-B

Big Mac Index



How fast can you say "twoallbeefpattiespecialsaucelettuce
cheesepicklesonionsonasesameseedbun?"

This question was asked of millions of TV viewers in the now famous 1970s McDonald's television commercial promoting the Big Mac. The Big Mac, perhaps the world's most popular sandwich, was created in 1968 by a McDonald's franchisee in Pittsburgh, Pennsylvania. While most people see the Big Mac as "twoallbeefpattiespecialsaucelettucecheesepicklesonionsonasesameseedbun," economists also see the sandwich as a consumer good that is sold at over 25,000 McDonald's restaurants in 116 countries around the world. Because of its popularity, the Big Mac allows economists to make (admittedly unscientific) comparisons of exchange rates and relative prices in countries around the globe.

The Economist, March 16, 2010
http://www.economist.com/daily/chartgallery/displaystory.cfm?story_id=15715184

Handout 5-C

Big Mac Index, March 16, 2010

COUNTRY	Price of a Big Mac in US Dollars
Norway	\$6.87
Switzerland	\$6.16
Euro area	\$4.62
Canada	\$4.06
Australia	\$3.98
Hungry	\$3.75
Turkey	\$3.71
United States	\$3.58
Japan	\$3.54
Britain	\$3.48
South Korea	\$3.00
United Arab Emirates	\$2.99
Poland	\$2.86
Saudi Arabia	\$2.67
Mexico	\$2.56
South Africa	\$2.44
Russia	\$2.39
Egypt	\$2.37
Taiwan	\$2.36
Indonesia	\$2.28
Thailand	\$2.16
Malaysia	\$2.12
China	\$1.83

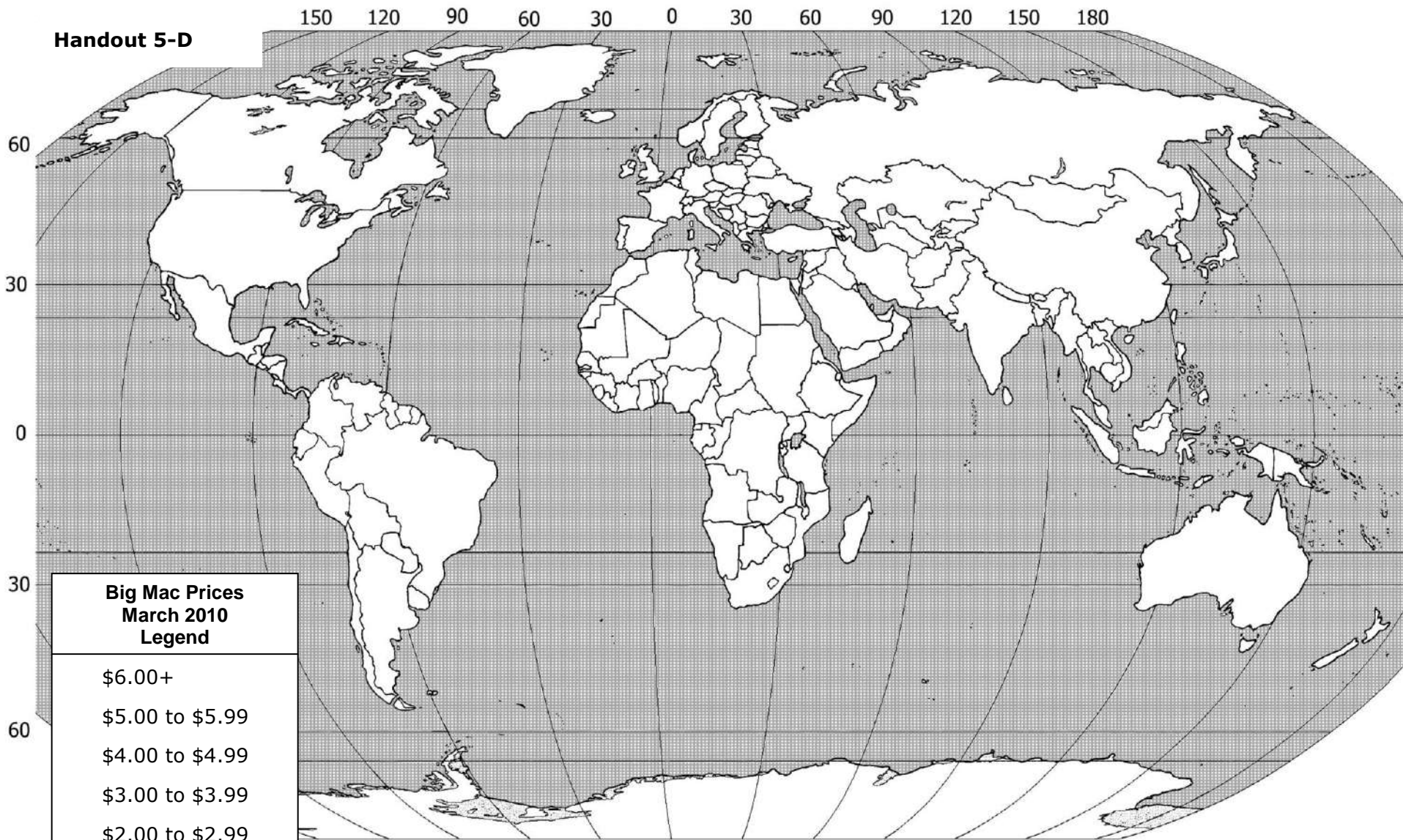
For this mapping activity, you will use different colors to represent different dollar amounts. The colors representing the data should go from dark colors to light colors. Be sure to show what your colors represent in your map legend.

Answer these questions when you are done:

1. Are there areas of the world where Big Macs are most expensive or least expensive?
2. How might you explain the fact that there are areas for which there is no data?

Choropleth map created by Rebecca Reed, June 2010,
using Microsoft Paint.

Handout 5-D



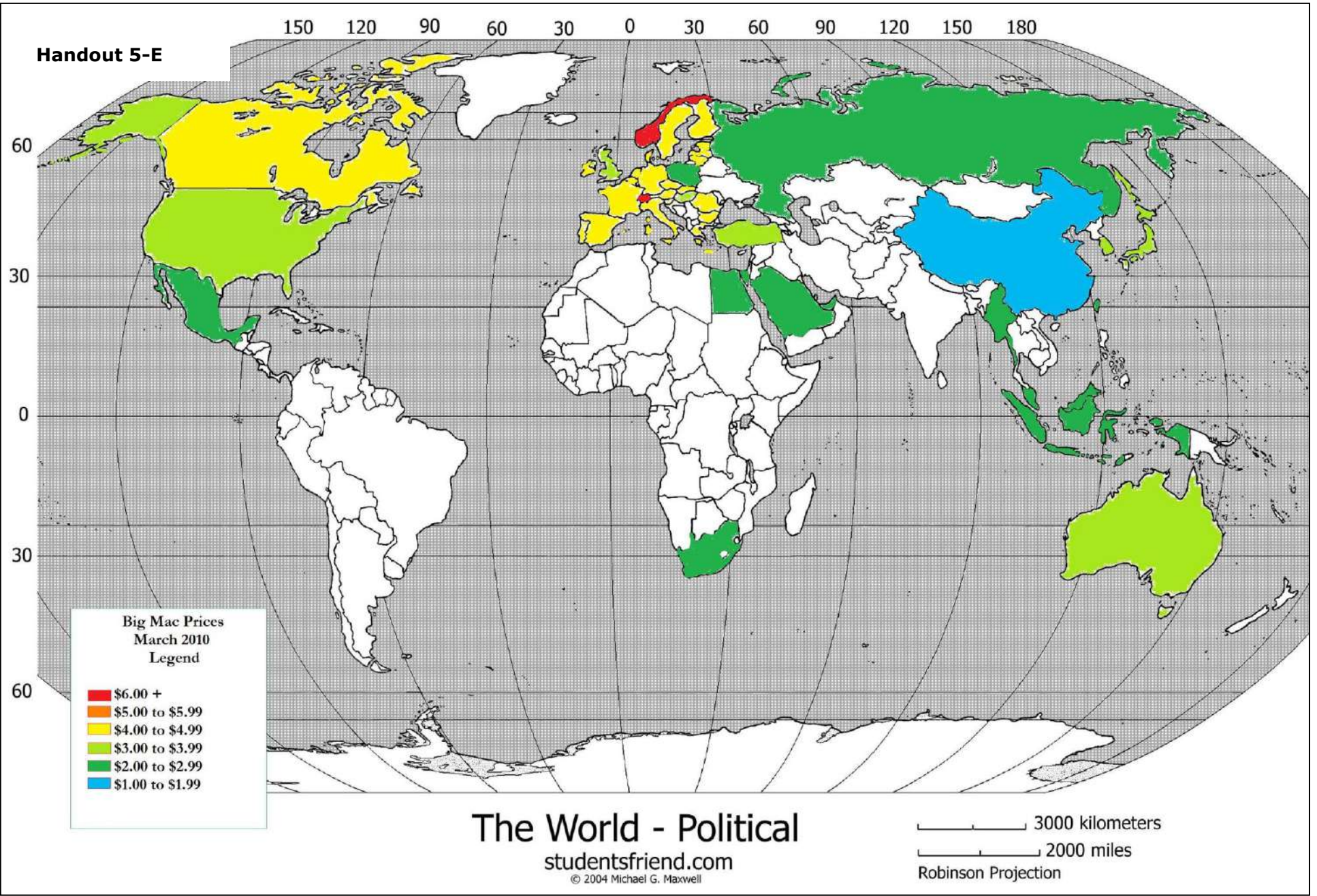
Big Mac Prices March 2010 Legend	
\$6.00+	
\$5.00 to \$5.99	
\$4.00 to \$4.99	
\$3.00 to \$3.99	
\$2.00 to \$2.99	
\$1.00 to \$1.99	

The World - Political

studentsfriend.com
© 2004 Michael G. Maxwell

3000 kilometers
2000 miles
Robinson Projection

Handout 5-E



Handout 5-F

How to Make a Cartogram

Adapted from: Making a Cartogram by Chuck Dwelley, An Educator's Reference Desk Lesson Plan, #:AELP-GGR0021

Cartograms are chart maps that present statistical information. On a cartogram, sizes of geographic areas are changed to show the statistical information. For example, on a cartogram about rainfall, an area that gets more rain would be bigger than one that gets less rain.

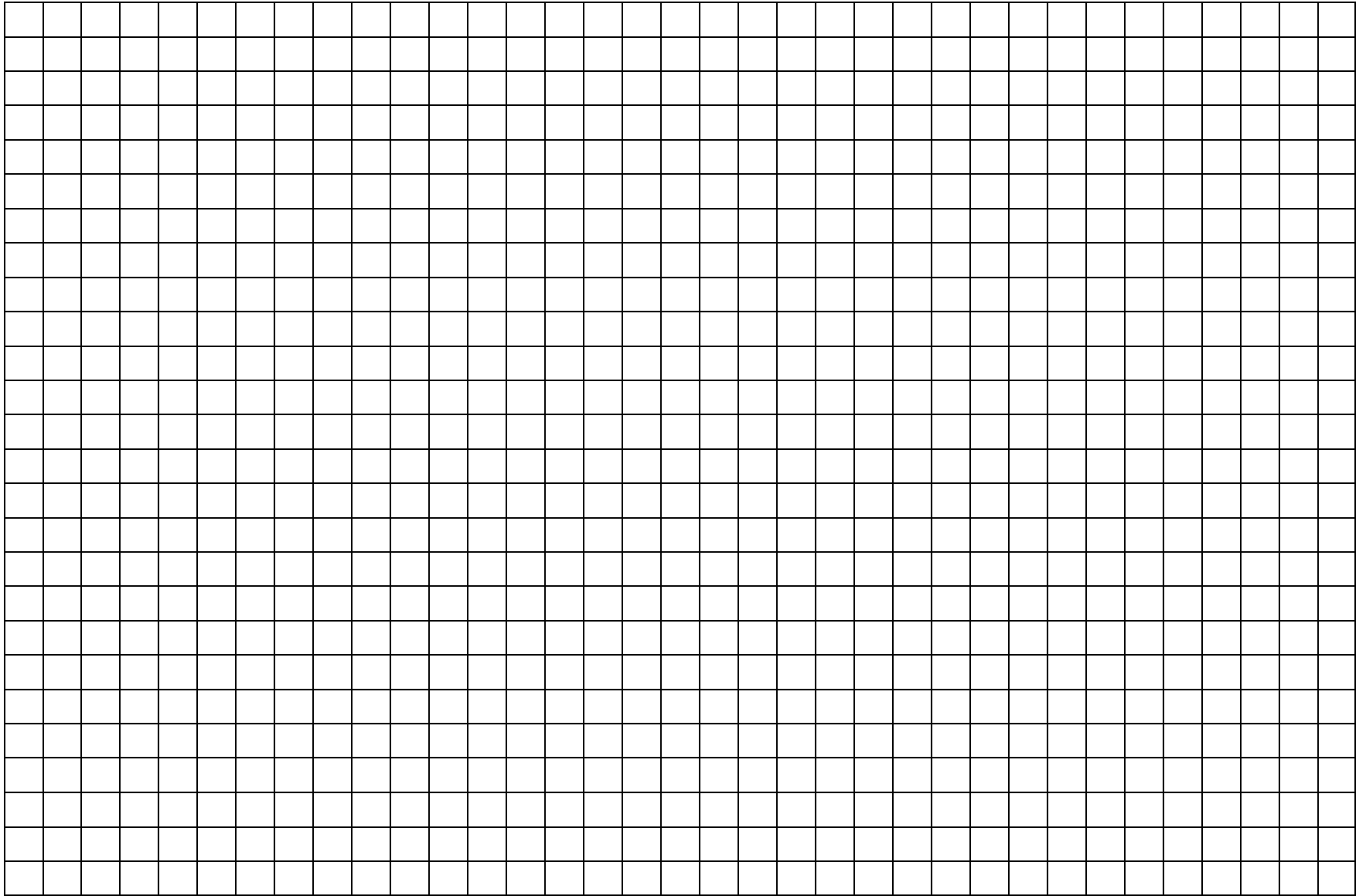
Steps:

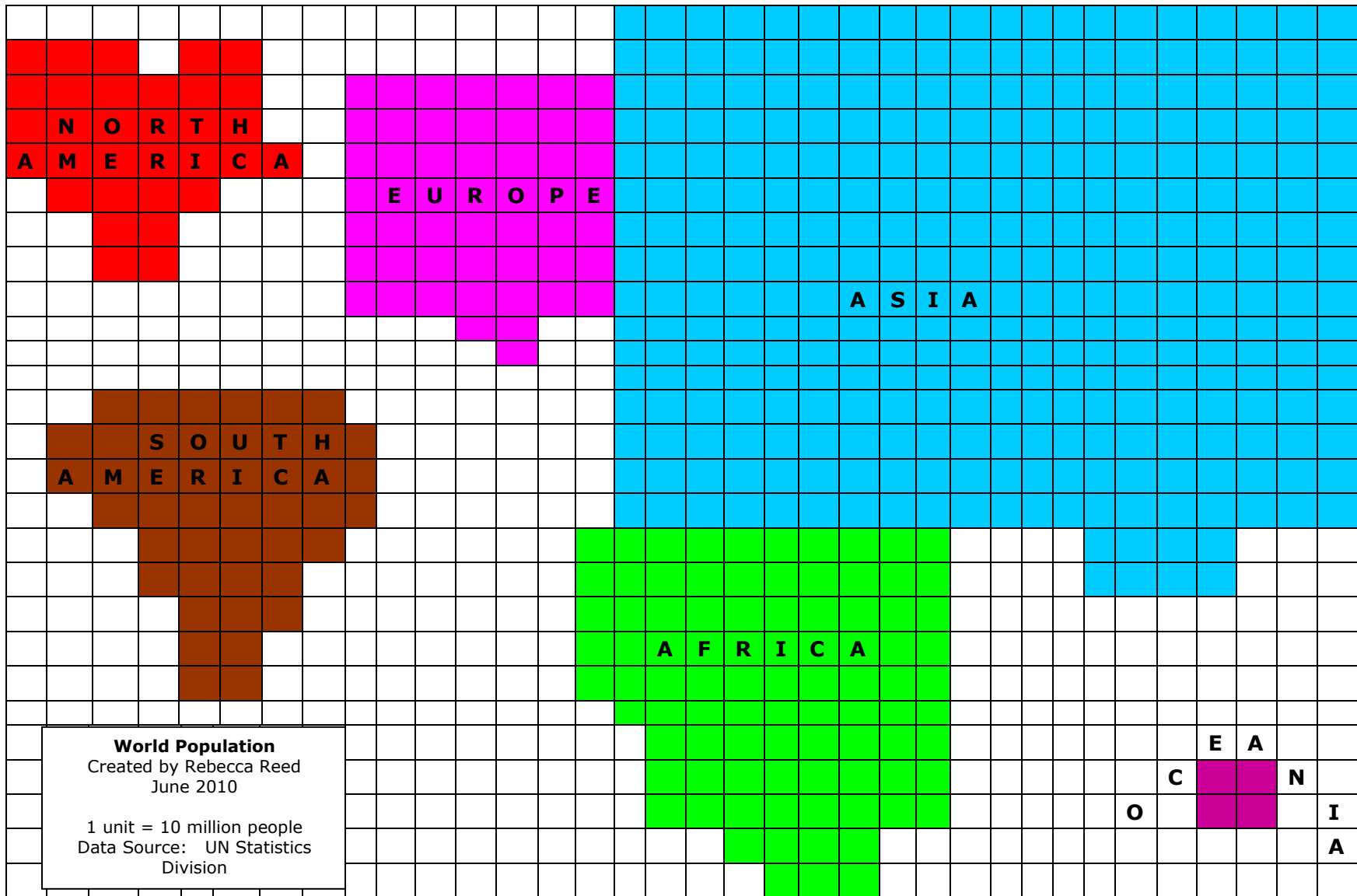
1. Obtain a listing of the data to be displayed. For example, World Population in 2010 (estimated).

CONTINENT	Population	Population by 10 million (Scale)
Africa	1,033,043,000	103
Asia	4,166,741,000	416
Europe	732,759,000	73
South America	588,649,000	58
Northern America	351,659,000	35
Oceania	35,838,000	4
World	6,908,688,000	

Source: UN Statistics Division, Department of Economic and Social Affairs. "World Population Prospects: The 2008 Revision."

2. Determine a scale. In the example above we will use one square unit of area per 10 million population. For example, Africa will cover 103 units or squares in the graph paper, and Oceania will cover 4 units in the graph paper.
3. Keep regions, in this case continents, in their approximate locations, making a map showing the data graphically. The distortions will demonstrate the data.
4. Label the cartogram. Be sure to identify the scale used on your map.





Charter School Unit Modification

Guiding Questions

1. Why was this model unit of instruction selected as part of your schools' curricular submission?

This model unit of instruction was selected as part of Kuumba Academy's curricular submission because they are a part of the DE Social Studies Coalition. This unit gives student the role of researcher, providing them the necessary knowledge to be lifelong researchers, understanding the questions pertinent to ask when looking for accurate information.

Kuumba Academy is expanding its current charter to include students in grades 6-8 under the nationally recognized Expeditionary Learning Model. Within this framework for teaching and learning, the already proven practices at Kuumba Academy will be enhanced by the addition of a hands-on, project-based approach to teaching and learning. The units of instruction within the DE SS Coalition lend themselves well to an inquiry based curriculum.

This unit of instruction falls beneath the Expedition titled, "Through the Eyes of Our Veterans." Middle school students begin to examine themselves and the people they are becoming. Students examine the world around them and think critically about the factors that determine outcomes that affect their lives. Students analyze the complexities of our modern world and the conflicts of the 20th and 21st centuries then identify the causes and effects of conflict in addition to the various perspectives that exist within either side of a conflict. Using local veterans as interview subjects and experts, students will solidify their thinking about war and the importance of the on the ground players. Finally, these skills lead them to honor the sacrifices that others have made in the past and continue to make as we move forward.

2. What modifications have been made to the model unit of instruction to meet the specific needs of the student population your school serves?

No modifications have been made to this model unit of instruction. Imbedded into the unit are suggestions for differentiation, so the needs of all learners can be met through this unit as is.

3. What modifications have been made to the model unit of instruction that reflect the resources (human, time, building, technology etc.) available to your school?

No modifications have been made to this unit of instruction

4. Describe any other modifications that have been made to the model unit of instruction that will assist in the curricular review for your school.

No modifications have been made to this unit.

Delaware Model Unit Gallery Template

Unit Title: Historical Research

Content Area: Social Studies

Grade Level(s): 6–8

Summary of Unit

By completing a National History Day (NHD) project, students are exposed to research skills that need to be learned and used to guide the historical research. Secondly, the students are exposed to a set of questions about every document a researcher uses when encountering a source.



Each year, National History Day uses a different theme. The theme is intentionally broad enough to allow a student the freedom to select interesting topics across time and from many different places. Once a topic is chosen, a student investigates historical context, historical significance, and relationship to the theme through researching primary and secondary sources. A student must evaluate historical sources for bias and credibility. After analyzing and interpreting his or her findings, a student chooses a method of presentation. The student must also make a very important choice—whether to work alone or in a group of up to five students.

Historical accounts of the same event, person, or idea may differ because historians have asked different questions of the same sources or because they have used the sources differently. Historical records just lie there. The factual information in them does not jump out without questions being asked. The questions help to determine the answers and therefore the conclusions. The well-armed student is aware that the phrasing of the questions underlying a research design influences the conclusions. After a few pages of a historical narrative, it is obvious usually where that historian's methods and original

questions will lead. Now the student can assess how persuasive the argument is while realizing it is that historian’s argument, not the last word on the topic.

A student undertaking research should begin with who, what, when, where, how, and why. Students should be advised and encouraged to continually investigate: become like detectives, keep asking questions; brainstorm new questions to ask, especially as answers are learned to the first few questions. The first thing to do is to get the simple facts straight. Use a secondary source such as a dictionary, biographic dictionary, or documents to establish a date, such as a person’s life span or to discover elementary information that would put the person into a context in history. Students should think about what questions a historian might ask when researching a given topic. Students should formulate questions as often as try to find answers. The interpretative part of questions in history means that historical conclusions will likely be challenged sometime in the future as different historians ask different questions or find different sources.

Historical sources all mislead to a certain extent because they tell only part of the story from one perspective. As long as human beings generate documents, there will never be an unbiased document. Students must learn to recognize bias and understand why sources are biased. When a historian encounters any document, questions must be raised. Sometimes a document will seem perfect, but caution students to not get so thrilled about the contents of a document that you overlook necessary questions. What is the genealogy of this document? How did it come to be located in this archive or collection? Is the path from its creation to its location believable? Could it have been planted? Is the document out of character with other documents?

Students should continually question the trustworthiness and credibility of sources, particularly for online research. Anyone can start a website to say almost anything. Students at this grade level tend to trust or use the first site to appear in a search engine. A good rule of thumb for academic research would be to use websites from educational institutions—universities, museums, archives, etc.

Stage 1 – Desired Results

(What students will know, do, and understand)

Delaware Content Standards

History Standard Two 6-8a: Students will master the basic research skills necessary to conduct an independent investigation of historical phenomena.

History Standard Two 6-8b: Students will examine historical documents, artifacts, and other materials, and analyze them in terms of credibility, as well as the purpose, perspective, or point of view for which they were constructed.

Big Idea(s)

Investigation

Unit Enduring Understanding(s)

K–12

- Many different types of sources exist to help us gather information about the past, such as artifacts and documents. Sources about the past need to be critically analyzed and categorized as they are used.
- Critical investigation demands constant reassessment of one’s research strategies.
- A historian must prove where the information can be found that is the basis for historical conclusions.

Unit Essential Questions

Overarching Essential Questions

- Is this source credible? How do I know?
- What questions should I ask before I use this source? After I use it?

Unit Questions

- What causes an individual to impact history?
- What is the best way to complete a research project?
- How do I avoid plagiarism?

Knowledge and Skills

Students will know...

- Analysis
- Research
- Historical sources (primary and secondary)
- Context
- Bias
- Credibility

Students will be able to...

- Analyze, access, manage, integrate, evaluate and create information in a variety of forms and media
- Understand, manage, and create effective oral, written, or multimedia communication
- Frame, analyze, and solve problems
- Locate appropriate resources

Stage 2 – Assessment Evidence (Evidence that will be collected to determine whether or not Desired Results are achieved)

Suggested Performance/Transfer Task(s)

Essential Questions Addressed by the Transfer Task

- Is this source credible? How do I know?
- What questions should I ask before I use this source? After I use it?

Prior Knowledge Now that you have learned about the best way to complete a research project, you are ready to use that knowledge to complete a National History Day project.

Problem Now that you have selected a topic to research and written a thesis statement, you need to find credible historical sources to provide evidence that supports or disproves your thesis statement. You need to prove where you found those historical sources and why you chose them as a basis for historical conclusions.

Role/Perspective You are a researcher that is working on a National History Day project. Your goal is to create a written record that will show the depth and quality of your research and highlight your conclusions.

Product/Performance Submit a process paper and annotated bibliography for your National History Day project.

A process paper is a description of no more than 500 words explaining how you conducted your research and created and developed your entry. You must conclude your description with an explanation of the relationship of your topic to the contest theme.

An annotated bibliography is required for all categories. It should contain all sources that provided usable information or new perspectives in preparing your entry. You will look at many more sources than you actually use. You should list only those sources that contributed to the development of your entry. Sources of visual materials and oral interviews must be included. The annotations for each source must explain how the source was used and how it helped you understand your topic.

Criteria for an Exemplary Response

Be sure to include these items in your process paper:

- A title page is required as the first page of written material in every category. Your title page must include only the title of your entry, your name(s), and the contest division and category in which you are entered. Do not include your age, grade, or school name.
- **First section** should explain how you chose your topic.
- **Second section** should explain how you conducted your research.
- **Third section** should explain how you selected your presentation category and created your project.
- **Fourth section** should explain how your project relates to the NHD theme.

Be sure to remember this about your annotated bibliography:

- An annotation normally should be 1-3 sentences long.
- The Contest Rule Book states that the annotations “must explain how the source was used and how it helped you understand your topic.” Do not recount what the source said.

Rubrics

Transfer Task Rubric

Scoring Category	Score Point 3	Score Point 2	Score Point 1
Process paper explains how your topic was chosen	The explanation is well developed	The explanation is partially developed	The explanation is minimally developed
Process paper explains how research was conducted	The explanation is well developed and reflects an effective research strategy	The explanation is partially developed and/or reflects a somewhat effective research strategy	The explanation is minimally developed and/or reflects an ineffective research strategy
Process paper explains how the presentation category was selected and the project was created	The explanation is well developed	The explanation is partially developed	The explanation is minimally developed
Process paper explains how the project related to the NHD theme	The explanation exhibits a clear linkage between the chosen topic and NHD theme	The explanation exhibits a somewhat clear linkage between the chosen topic and the NHD theme	The explanation does not exhibit a clear linkage between the chosen topic and the NHD theme
The annotated bibliography explains how each source was used and how it helped develop understanding of the topic	The bibliography exhibits clear linkage between the chosen sources and how they helped develop understanding of the topic	The bibliography exhibits a somewhat clear linkage between the chosen sources and how they helped develop understanding of the topic	The bibliography does not exhibit a clear linkage between the chosen sources and how they helped develop understanding of the topic
Uses content-appropriate vocabulary in order to demonstrate understanding	Content-appropriate vocabulary is well developed and evident	Some evidence of content-appropriate vocabulary usage	Minimal evidence of content-appropriate vocabulary usage

Total Score: _____

Above the Standard: 16 to 18
Mets the Standard: 11 to 15
Below the Standard: 6 to 10

Other Evidence

Formative Assessment is embedded into the lessons through the Checks for Understanding.

Student Self-Assessment and Reflection

When students are required to think about their own learning, to articulate what they understand and what they still need to learn, achievement improves.

– Black and William, 1998; Sternberg, 1996; Young, 2000.

How a teacher uses the information from assessments determines whether that assessment is formative or summative. Formative assessments should be used to direct learning and instruction and are not intended to be graded.

The Checks for Understanding at the end of each instructional strategy should be used as formative assessment and may be used as writing prompts or as small-group or whole-class discussion. Students should respond to feedback and be given opportunities to improve their work. The rubrics will help teachers frame that feedback.

An interactive notebook or writing log could be used to organize student work and exhibit student growth and reflection.

Stage 3 – Learning Plan (Design learning activities to align with Stage 1 and Stage 2 expectations)

Key Learning Events Needed to Achieve Unit Goals

Lesson 1

Unit Questions

- What causes an individual to impact history?
- What is the best way to complete a research project?



George Washington crossing the Delaware River

Background

Through completion of a historical research project like [National History Day](#), students engage in an independent investigation and interpretation of historical topics related to an annual theme. In the process, they master the basic research skills and produce creative

and scholarly projects in the form of exhibits, documentaries, historical papers, or performances.

During the 2008-2009 school year, National History Day invites students to research topics related to the theme *The Individual in History: Actions and Legacies*. As is the case each year, the theme is broad enough to encourage investigation of topics ranging from local to world history and from ancient times to the recent past. To understand the historical importance of their topics, students need to ask questions about time, place, and context; cause and effect; changeover time; and impact and significance. They ought to consider not only when and where events happened, but also why they occurred, what factors contributed to their development, and what effects they had on broader history. In other words, historical research projects should go beyond mere description to include analysis of information and conclusions about how the topic influenced and was influenced by other people, ideas, and events.

Delaware Social Studies Standards Integrated in the Instructional Strategies

History Standard Two 6-8a: Students will master the basic research skills necessary to conduct an independent investigation of historical phenomena.

Instructional Strategies

Strategy 1: Gathering Information

Think-Pair-Share

(T/P/S) Warm-up Journal question: What makes someone important to history? What characteristics should they possess?

Have the students share with their partners the characteristics they think that someone should possess to make them important. Have them add to each other's lists. Then have them determine together what makes someone important to history.

Post a timeline of major historical American events on the board or overhead. See attached **Handout #1**. Break students into groups of 3-4 and assign each group an event on the timeline. Then using their textbooks, Internet, or other classroom resources, have them identify 4-5 people in their event that they believe to be the most important.

Have them add the names of the people that they chose underneath the posted timeline. Then have them justify their picks to the class. **Pose the questions:**

- Why are these people the most important?
- What makes them the most important?
- Were there other people that you had to leave off because **you** could only pick 4?
- What criteria did you use to pick the people?

Check for Understanding

Have students choose one of the people from their time period or from one of their classmates' time periods. Then answer this question:

- Why is the person you chose the most important of all of the people listed? Explain your answer.

Rubric

2 – This response gives a valid reason with an accurate and relevant explanation.

1 – This response gives a valid reason with an inaccurate, irrelevant, or no explanation.

For administration of formative assessment see **Student Self-Assessment and Reflection**.

Strategy 2: Extending and Refining Carousel Jigsaw

Break the students into groups of 4–5 people. Each group will be given a different color marker to use throughout the activity. Around the room the following statements will be posted either on large sheets of paper or on smaller pieces of paper taped to desks around the room.

1. Individuals can change history by themselves.
2. The time and place in which a person lives affects their role in history.
3. The only people that changed history are the ones who are famous.
4. A person is a product of the events and the people that came before them.
5. People impact history because they are associated with a just cause.
6. Individuals who impact history all have similar characteristics.

The students will first travel around the room and **each** group **will** decide whether they agree or disagree with the statement and then write their answer under the statement.

The second time around the room they must justify their answer with a statement. Why do they agree or disagree? They should list a clarifying statement to help explain. They can also list examples to help them explain.

The third time around the room they should just read everyone else’s answers and discuss in their groups whether they agree or disagree with what their classmates posted.

After they have traveled around the room the last time, have the groups consider all the posted answers and have them answer the following questions:

- What makes an individual important to history?
- What roles do individuals play in history?
- What impacts a person’s legacy in history?

Check for Understanding

- How will you determine if an individual has impacted history? Explain your answer.

Rubric

2 – This response gives a valid reason with an accurate and relevant explanation.

1 – This response gives a valid reason with an inaccurate, irrelevant, or no explanation.

For administration of formative assessment see **Student Self-Assessment and Reflection**.

Strategy 3: Application Categorizing

Provide the following internet sites, perhaps using a TrackStar link

(<http://trackstar.4teachers.org/trackstar>):

- Susan B. Anthony: <http://www.biography.com/search/article.do?id=9186331>
- Andrew Carnegie: <http://www.biography.com/search/article.do?id=9238756>
- Jackie Robinson: <http://www.biography.com/search/article.do?id=9460813>
- J. Robert Oppenheimer: <http://www.biography.com/search/article.do?id=9429168>
- Jacob Riis: <http://www.biography.com/search/article.do?id=40211>
- Ray Kroc: <http://www.biography.com/search/article.do?id=9369349>
- Eleanor Roosevelt: <http://www.biography.com/search/article.do?id=9463366>

Or, provide the students hardcopies of the biographies (**Handout #2**). Have the students rank the biographies in order of importance according to the student with number 1 being the most important and number 7 being the least important. Next to each person have the students explain why they placed the person where they did.

Once the students have ranked the people have them explain their justifications.

- What criteria did you use to rank the individuals?
- What made your number 1 person your first choice?
- Why would your classmates have different lists than you did? What does that suggest about history and the way that it is written?

Check for Understanding

- What makes an individual “nudge history forward”? Explain with an example of a person who you believe has done this.

For administration of formative assessment see [Student Self-Assessment and Reflection](#).

Lesson 2

Unit Question

- What is the best way to complete a research project?



Background

Students need to be able to select a topic that is important and ties closely to the theme. Writing a thesis statement about that topic will give them something to prove or disprove with the resulting research. The thesis statement should be re-assessed throughout the completion of the project to verify that it is still valid and consistent with the student’s research results.

Delaware Social Studies Standards Integrated in the Instructional Strategies

History Standard Two 6-8a: Students will master the basic research skills necessary to conduct an independent investigation of historical phenomena.

Instructional Strategies

Strategy 1 – Gathering Information: Prioritizing and Selecting a National History Day Topic

Have students create a list of five or more historical events or people or time periods in which they are interested. **What *kind* of history interests you? Political, military, social, intellectual, cultural? How much do you already know about it?**

Have students then cross out their least favorite choice, leaving four items. Then cross out the next least favorite, leaving three items. Continue until only one event or person of interest remains.

Does the historical event or person left on your list have a relationship to the theme? It may not be an obvious relationship at first. Have students share with another student their most interesting topic and discuss whether it has a relationship to the theme.

Suppose that you have an interest in women’s history. Fill in the chart below on the board or overhead as you relate this example to demonstrate that women’s history as a topic is too broad.

To support this selection, students should take a look at the [Sample Topic List](#) and read the article “[Studying a Person, Not Writing a Biography](#)” (found on pages 8 and 9 of the NHD Curriculum Book).

Interest:	Women’s History
Theme:	The Individual in History: Actions & Legacies
Topic:	Eleanor Roosevelt

For example, if you are interested in women’s history and the theme is *The Individual in History: Actions & Legacies*, a natural topic or subject would be Eleanor Roosevelt. At this point you may realize that it is impossible to look at all of the actions that Eleanor Roosevelt made that impacted society. This means that you have to take another step in the narrowing process and select a specific focus within the topic.

Strategy Source: National History Day

Check for Understanding

- How do I find a topic that interests me?

Rubric

1 – This response gives a valid explanation of how to find a topic of interest.

0 – This response gives an invalid explanation of how to find a topic of interest.

- How do I know a topic relates to the NHD theme?

Rubric

1 – This response gives a valid explanation of understanding how a chosen topic relates to the NHD theme.

0 – This response gives an invalid explanation of understanding how a chosen topic relates to the NHD theme.

For administration of formative assessment see [Student Self-Assessment and Reflection](#).

Strategy 2 – Extending and Refining: Historical Research

The next step in narrowing the topic is completing basic research and completing a brief biography of the selected individual. Using secondary sources students will write a brief biography that includes:

- Three to five of the most important contributions that person made to society.
- The people connected to that person (colleagues, other leaders within a movement, ordinary people connected to the event, opposition leaders, etc.).

Using that research students will create a “multi-layered timeline” connecting the person and the events of their life to what was occurring in the larger context of history. A sample

can be found on page 15 of the teacher’s guide. This step will assist students in developing a broad understanding of historical context which is one of the key criteria for the historical quality category of judging. Students should be able to answer the questions: How was the topic influenced by and how did it influence other historical events?

Based upon their findings, students will decide which issue to use as the focus for their topic’s research. For instance, a student would find that in-depth research for Eleanor Roosevelt could focus on her role in supporting human rights, her role in supporting civil rights in America, her role in supporting women’s rights around the world, or her role in bringing gender politics to the attention of America. (These examples are included in “[Studying a Person, Not Writing a Biography](#)”).

Interest:	Women’s History
Theme:	The Individual in History: Actions & Legacies
Topic:	Eleanor Roosevelt
Issue: (A specific action or legacy)	Human Rights

Strategy Source: National History Day

Teacher Tip - Offer these tips on Topic Selection:

- The topic should be interesting to the student.
- The topic should clearly fit the year’s theme.
- The topic should be in depth and narrow in scope. It is better to focus on one issue in detail than to cover many issues superficially.
- The topic should reflect the availability of primary and secondary resources. A local topic is often a good choice, because primary documents are more likely to be available in the community in which an event occurred or in which a person lived.

Check for Understanding

- Why is it important to do basic research before deciding on a specific action or legacy that your subject contributed? Explain your answer.

Rubric

2 – This response gives a valid reason with an accurate and relevant explanation.

1 – This response gives a valid reason with an inaccurate, irrelevant, or no explanation.

For administration of formative assessment see [Student Self-Assessment and Reflection](#).

Strategy 3 – Application: Developing a Thesis Statement

Students will deepen their research strategy by outlining the issues to be explored in the research, determining initial questions to be answered by the research, developing a working title for the research, and writing a thesis statement. To assist with the outline of these steps a Topic Selection Worksheet is available on the NHD website:

<http://www.nhd.org/images/uploads/TopicSelectionWorksheet.pdf>.

Resources to support writing a thesis statement include:

<http://owl.english.purdue.edu/owl/resource/545/01/>

Check for Understandings

- What is the difference between a topic and a thesis?

Rubric

2 – This response gives a valid difference between a topic and a thesis with an accurate and relevant thesis statement.

1 – This response gives a valid difference between a topic and a thesis with an inaccurate, irrelevant, or no thesis statement.

- How does my thesis statement show a relationship to the theme?

Rubric

1 – This response gives a valid explanation of how the thesis statement shows a relationship to the theme.

0 – This response gives an invalid explanation of how the thesis statement shows a relationship to the theme.

For administration of formative assessment see [Student Self-Assessment and Reflection](#).

Lesson 3

Unit Questions

- Is this source credible? How do I know?
- What questions should I ask before I use this source? After I use it?



Background

A student undertaking research should begin with who, what, where, how, and why. Students should continually investigate—become like detectives, keep asking questions; brainstorm new questions to ask, especially as answers are learned to the first few questions. Students should think about what questions a historian might ask when researching a given topic. Students should formulate questions as often as try to find answers.

Historical sources tell only part of the story from one perspective. As long as human beings generate documents, there will never be an unbiased document. When a historian

encounters any document, questions must be raised. Sometimes a document will seem perfect, but caution students to not get so thrilled about the contents of a document that you overlook necessary questions. What is the genealogy of this document? How did it come to be located in this archive or collection? Is the path from its creation to its location believable? Could it have been planted? Is the document out of character with other documents?

Students should continually question the trustworthiness and credibility of sources, particularly for online research. Anyone can start a website to say almost anything. Students at this grade level tend to trust or use the first site to appear in a search engine. A good rule of thumb for academic research would be to use websites from educational institutions—universities, museums, archives, etc.

Delaware Social Studies Standards Integrated in the Instructional Strategies

History Standard Two 6-8a: Students will master the basic research skills necessary to conduct an independent investigation of historical phenomena.

History Standard Two 6-8b: Students will examine historical documents, artifacts, and other materials, and analyze them in terms of credibility as well as the purpose, perspective, or point of view for which they were constructed.

Instructional Strategies

Strategy 1 - Gathering Information: Concept Development

Write the words **trustworthy** and **reliable** on the board or display on an overhead projector.

Ask students to explain what these words mean and give examples. **What kinds of things display these characteristics? What is the relationship between the two words?**

Explain to students that another description for things that are trustworthy and reliable is that they are **credible**. **Credibility is how academic sources are described if they are trustworthy and reliable.**

Check for Understanding

- What does it mean if something is credible? Give examples without using the words "trustworthy" or "reliable."

Rubric

3 – This response gives a valid explanation of credibility with accurate and relevant examples that do not use the words "trustworthy" or "reliable."

2 – This response gives a valid explanation of credibility with accurate and relevant examples that use the words "trustworthy" or "reliable."

1 – This response gives a valid explanation of credibility with inaccurate, irrelevant, or no examples.

For administration of formative assessment see [Student Self-Assessment and Reflection](#).

Strategy 2 – Extending and Refining: Verifying Credibility

Ask the students: **What is the boiling point of radium? (Give your answer in Kelvin (K).)** When students do not know the answer offhand, ask where they could find the information. The Internet will be a popular response.

Online searching for the boiling point of radium in Kelvin included these two websites in the search results. Direct students to these two websites:

1. <http://www.chemicool.com/elements/radium.html>
2. <http://www.chemicalelements.com/elements/ra.html>

Should the boiling point of radium be the same, no matter where you look? Yes, it would be considered factual information, verified by various independent sources.

The first website gave the boiling point of radium as 1973 Kelvin. The second website gave the boiling point of radium as 2010.15 Kelvin.

Students need to question the reason why a fact is stated as such, especially when there are "conflicting" facts.

What would account for the difference? Answers will vary, but the essential point to draw from discussion is that, just because it is on the internet, it is not always true, trustworthy, reliable, or credible.

Teacher Note: Boiling Point is dependant on temperature and pressure, so if pressure is changed, the temperature at which it boils also changes. Temperatures for boiling point are usually given at standard atmospheric pressure (sea level). Also, different "elements" might have different densities, boiling points, and other characteristic properties because there are different isotopes of those elements.

What might help you determine which website is more credible regarding the "real" boiling point of radium? Have students brainstorm while examining the two websites. Direct the discussion to the indicators below. Teachers should read the handout from *An Educators' Guide to Credibility and Web Evaluation* to lead the discussion: <http://www.ed.uiuc.edu/wp/credibility/index.html>

Consider these indicators of whether a website is reliable:

- Author
- Purpose
- URL
- Currency
- Design

What questions might a researcher ask about each of the indicators to help determine credibility?

Teachers should use the *Web Page Evaluation* sheet (**Handout #3**) for questions that illustrate each of the indicators in order to help students define them.

Name of web site:	Date:
URL:	
Author Is an author provided? Is there a way to contact the author? If the author's name is unfamiliar or not provided, is the site linked to an established authority, like a museum or archive, on the subject?	

Are the author's credentials listed? (a doctorate or professor, etc.)
Do the credentials entitle the author to be considered an expert on the topic?

Purpose

Can you identify the purpose of this site?
If yes, what is it? _____
Is the type of material appropriate for the assignment?
Does the information lead to other sources that are useful?
Is a bibliography included?
Does the information match information found elsewhere?

URL

What does the URL of this site end with?
.gov .edu .com .org .net other _____
Is the URL appropriate for the NHD research project?

Currency

Does the site include the date of its last revision?
Has the site been updated recently?
Does the site include the dates of future updates?
Is the copyright date available?
Are all the links to additional sites still working?

Design

Is the site easy to navigate?
Are the links clearly labeled?
Can you find the desired information easily?
Does the site make good use of graphics and color?
Does the site use correct grammar and spelling?

Is this source credible? How do you know?

Have students construct a graphic organizer like the one below or use **Handout #4** to help organize and compare questions.

Author	Purpose	URL	Currency	Design

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Check for Understanding

- How does a website tell you whether it is credible? Support your answer with an example.

Rubric

2 – This response gives a valid explanation of website credibility with an accurate and relevant example.

1 – This response gives a valid explanation of website credibility with inaccurate, irrelevant, or no example.

For administration of formative assessment see [Student Self-Assessment and Reflection](#).

Strategy 3 - Application: Verifying Credibility

When historians conduct research, one of the things that they are most concerned about is the credibility of their primary and secondary sources. Today, much research can be conducted online, and it is important to verify the credibility of websites that you might use to find historical sources for your NHD project.

Check for Understanding – Formative Assessment

- Using the web page evaluation sheet, determine whether these sites are credible for researchers. How do you know?
<http://www.harvestofhistory.org/>
<http://zapatopi.net/treeoctopus/>
<http://www.globalissues.org/>
- What questions do you still have of these websites after evaluation?

Rubric

2 – This response gives a valid decision of website credibility with accurate and relevant questions.

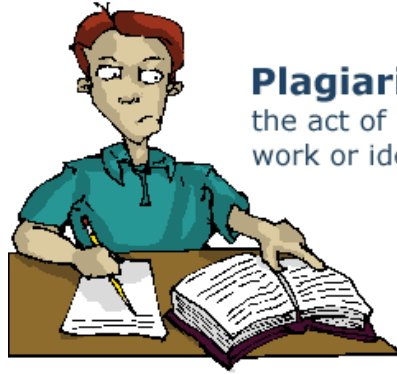
1 – This response gives a valid decision of website credibility with inaccurate, irrelevant, or no questions.

For administration of formative assessment see [Student Self-Assessment and Reflection](#).

Lesson 4

Unit Question

- How do I avoid plagiarism?



Plagiarism:

the act of presenting another's work or ideas as your own.

Image linked from <http://www.lib.ncsu.edu>"

Background

As students conduct research, understanding is achieved by synthesizing and compiling information into a cohesive explanation of the problem or topic that is researched. Students should be able to restate what a primary or secondary source tells them about a topic or question without copying the source.

Teachers may wish to read for themselves or use with students at the completion of the lesson the handout *Avoiding Plagiarism* available at: <http://owl.english.purdue.edu>.

Delaware Social Studies Standards Integrated in the Instructional Strategies

History Standard Two 6-8a: Students will master the basic research skills necessary to conduct an independent investigation of historical phenomena.

Instructional Strategies

Strategy 1 – Gathering Information: Concept Development

Ask students: **What is plagiarism?** Responses might include stealing, lying, or academic fraud, etc. A teacher might be able to discuss past student cases of plagiarism in the classroom as a means of illustrating the problem. **What might be some of the causes of plagiarism?** Read the online definition of plagiarism found at: http://www.turnitin.com/research_site/e_what_is_plagiarism.html.

Based on this definition, answer the following in a journal or other form of writing: Have you ever plagiarized, knowingly or unknowingly, based on this definition? Support your answer with an example.

Checks for Understanding

- What do you think might prevent plagiarism in the future? Explain your answer.

Rubric

2 – This response gives a valid prediction with an accurate and relevant explanation.

1 – This response gives a valid prediction with an inaccurate, irrelevant, or no explanation.

- How might the increasing use of technology (computer, Internet, email, etc.) affect how often plagiarism occurs? Explain your answer.

Rubric

2 – This response gives a valid affect with an accurate and relevant explanation.

1 – This response gives a valid affect with an inaccurate, irrelevant, or no explanation.

For administration of formative assessment see **Student Self-Assessment and Reflection**.

Strategy 2 - Extending and Refining: Cubing

Ask students: **What does it mean to paraphrase?** Compile responses in a graphic organizer (or on the board/overhead) and look for similarities and differences that reveal possible misconceptions.

Using the reading **“How to Paraphrase Properly,”** available at http://www.plagiarism.org/learning_center/paraphrase.html or **Paraphrase: Write it in Your Own Words** available at: <http://owl.english.purdue.edu/owl/resource/619/01/>, students will investigate the process of paraphrasing.

After concluding the investigation, students will use cubing to discuss paraphrasing. A teacher can use the strategy with the whole class, as small-group work, and/or on a one-on-one basis. Cubing requires students to apply information they have been studying in new ways.

This strategy allows students to explore a topic from six different points of view. The name “cube” comes from the fact that cubes have six sides, and students explore a topic from the following six perspectives:

- **Describe it:** How would you describe plagiarism? Describe key characteristics/points and/or attributes including size, shape, and colors.
- **Compare it:** What is plagiarism similar to? Different from?
- **Associate it:** What does plagiarism make you think of? How does plagiarism connect to other topics/issues/subjects?
- **Analyze it:** Tell how plagiarism is made or what it is composed of. How would you break plagiarism down into smaller parts?
- **Apply it:** How does understanding plagiarism help you understand other topics/issues/decisions/events?
- **Argue against it:** Take a stand and list reasons for not supporting plagiarism.
 - I am not for this because
 - This does not work because

Differentiation Tip: Ask students to draw or otherwise graphically represent plagiarism.

Check for Understanding

- How do I avoid plagiarism? Suggest a plan that a student could follow while completing a research project.

Rubric

2 – This response gives a valid method with an accurate and relevant plan.

1 – This response gives a valid method with an inaccurate, irrelevant, or no plan.

- Why is it important to learn about avoiding plagiarism? Explain your answer.

Rubric

2 – This response gives a valid reason with an accurate and relevant explanation.

1 – This response gives a valid reason with an inaccurate, irrelevant, or no explanation.

For administration of formative assessment see **Student Self-Assessment and Reflection**.

Strategy 3 - Application: Paraphrasing

Students will access a basic biography for their topic at: <http://www.biography.com/search/>. Using the text written by the author, the student will use their understanding of paraphrasing established in the previous strategy to help them paraphrase one paragraph found in the biography. Then, in pairs, students will share their paraphrasing and provide feedback to each other.

Check for Understanding

- Why is paraphrasing an important defense against plagiarism? Explain your answer.

Rubric

2 – This response gives a valid reason with an accurate and relevant example of paraphrasing.

1 – This response gives a valid reason with an inaccurate, irrelevant, or no example of paraphrasing.

For administration of formative assessment see **Student Self-Assessment and Reflection**.

Resources and Teaching Tips

Resources

Students will benefit from an individual copy of the NHD Contest Rule Book. They may be purchased very inexpensively (about 25¢ each). Contact Ellen Rendle, Delaware State History Day coordinator at photos@hsd.org. The *Rule Book* is also available online in PDF format.

National History Day Internet Resources

- Smithsonian Institution, National Postal Museum
- American Memory, Library of Congress <http://memory.loc.gov/ammem/>. Differentiating Sources http://memory.loc.gov/ammem/ndlpedu/start/prim_sources.html.
- MLA documentation style for Internet sources http://www.mla.org/publications/style/style_faq/style_faq4
- Lesson to help students gain skills necessary for researching by locating credible and original sources, determining if the sources are primary or secondary, ascertaining the qualifications and reputation of the author/speaker, and identifying the setting/circumstance of the source. http://www.pbs.org/opb/historydetectives/classroom/class_sources.html
- Finding Primary Sources in Library Research <http://www.lib.berkeley.edu/TeachingLib/Guides/PrimarySources.html>
- National Archives <http://www.archives.gov/>. Specific site for teachers and students completing a History Day project <http://www.archives.gov/education/history-day/index.html>
- National History Day <http://www.nationalhistoryday.org/>
- Delaware History Day <http://www.hsd.org/histday.htm>
- Using Primary Sources on the Web <http://www.lib.washington.edu/subject/history/RUSA/>
- Researching History Day topics and differentiating between types of sources <http://www.lib.washington.edu/subject/history/historyday/his.html>

NHD Recommended Digital Archives Databases

- OAlster (Open Archives Initiative) developed by the University of Michigan and the University of Illinois at Urbana-Champaign contains approximately 15 million records
<http://www.oaister.org>
- The Collaborative Digitization Programs in the United States based at Middle Tennessee State University links to projects in 41 states
<http://www.mtsu.edu/~kmiddlet/stateportals.html>
- The Greater Philadelphia region PACSCL <http://www.PhillyResearch.net/>

Using Historic Places to Help Research Individuals

- The National Park Service – Teaching with Historic Places
<http://www.nps.gov/history/NR/twhp/>
- National Register of Historic Places Database (the actual register nominations can be accessed using this website)
<http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome>
- National Register Travel Itineraries <http://www.nps.gov/history/nr/travel/index.htm>

Delaware Libraries and Museums

- ♦ Hagley Museum and Library
P.O. Box 3630
Wilmington, DE 19807-0630
(302) 658-2400 - www.hagley.lib.de.us/

Contains original manuscripts, rare books and pamphlets, and items that document the History of American Business and Technology. Also holds information on the DuPont Company and the du Pont family.

- ♦ Delaware Agricultural Museum and Village
866 N. Dupont Highway
Dover, DE 19901
(302) 734-1618 - DAMV@dol.net
- ♦ University of Delaware Library
181 South College Avenue
Newark, DE 19717-5267
(302) 831-2965 - <http://www.lib.udel.edu>

In addition to its collection of books, the library holds U.S. Government documents, periodicals, and newspapers on microfilm. Special Collections contain rare manuscripts, archival collections, graphic materials, ephemera, maps, and selected bibliographies. It also contains a collection of English, Irish, and American literature.

- ♦ Wesley College Library
120 North State Street
Dover, DE 19901
(302) 736-2413 - www.wesley.edu

Contains a large collection of books and subscribes to 400 print periodical titles and maintains a pamphlet file.

- ♦ Delaware State University Library

1200 N. DuPont Highway
Dover, DE 19901-2277
(302) 739-2777 - www.dsc.edu/library

In addition to its book collection, the library holds annual reports and a Delaware Collection.

- ♦ Delaware Public Archives
121 Duke of York Street
Dover, DE 19901
(302) 739- 5318 - www.state.de.us/sos/dpa

The official repository for documents generated by all state and local government offices. The archives collection holds birth and death records, genealogical findings, Civil War records, etc.

- ♦ Historical Society of Delaware Library
505 Market Street
Wilmington, DE 19801
(302) 655-7161 - www.hsd.org

The Historical Society collects all aspects of the history of Delaware and its people. The collections include newspapers, maps, manuscripts and photographs, serials, and pamphlets.

- ♦ Winterthur
Winterthur Museum, Garden, and Library
Winterthur, DE 19735
(800) 448-3883 - www.winterthur.org

Contains American Art and Historical Resources. The library's (like the museum's) specialty is early American decorative arts, pre-1815.

- ♦ Delaware museums administered by the State Division of Historical and Cultural Affairs may be located online at <http://history.delaware.gov/>

It is best to call to make an appointment and let the staff know ahead of time what you are trying to research.

Differentiation

- Stage 2 and 3 allow students to demonstrate understanding with choices, options, and/or variety in the products and performances without compromising the expectations of the Content Standards.
- Instruction is varied to address differences in readiness, interest, and/or learning profiles.
- Accommodations and differentiation strategies are incorporated in the design of Stage 2 and 3.

Differentiation is embedded within the teaching strategies.

Design Principles for Unit Development

At least one of the design principles below is embedded within unit design.

- **International Education** – the ability to appreciate the richness of our own cultural heritage and that of other cultures in order to provide cross-cultural communicative competence.

- **Universal Design for Learning** - the ability to provide multiple means of representation, expression and engagement to give learners various ways to acquire and demonstrate knowledge.
- **21st Century Learning** – the ability to use skills, resources, and tools to meet the demands of the global community and tomorrow’s workplace. (1) Inquire, think critically, and gain knowledge, (2) Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge, (3) Share knowledge and participate ethically and productively as members of our democratic society, (4) Pursue personal and aesthetic growth. (AASL, 2007)

21st Century learning skill development includes:

- Analyze, access, manage, integrate, evaluate, and create information in a variety of forms and media
- Understand, manage, and create effective oral, written or multimedia communication
- Frame, analyze, and solve problems
- Locate appropriate resources

Technology Integration

The ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information

- **8th Grade Technology Literacy** - the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st Century (SETDA, 2003).

Throughout this unit, students are learning the appropriate use of technology to communicate and access, manage, integrate, evaluate, and create information. Useful websites are embedded within the lessons, and student use of computers for some strategies is encouraged. In addition, Lesson Two focuses on research strategies; Lesson Three focuses on the credibility of sources; Lesson Four focuses on plagiarism.

Content Connections

Content Standards integrated within instructional strategies

ELA 3.1a1 (5-8): Identify and locate a variety of sources including printed materials, personal interviews, oral reporting forums and technological forms of information.

Depending on the topic selection, students will develop a better understanding of historical content to support History Standard Four.

History Standard Four (6-8a): Students will develop an understanding of pre-industrial United States history and its connections to Delaware history, including:

- Three worlds meet (Beginnings to 1620)
- Colonization and Settlement (1585-1763)
- Revolution and the New Nation (1754-1820s)
- Expansion and Reform (1801-1861)
- Civil War and Reconstruction (1850-1877)

History Standard Four (6-8b): Students will develop an understanding of ancient and medieval world history, and the continuing influence of major civilizations, including:

- The beginnings of human society
- Early civilizations and pastoral peoples (4,000-1,000 BC)

- Classical traditions, major religions, and great empires (1,000 BC--300 AD)
- Expanding zones of exchange and encounter (300-1,000 AD)
- Intensified hemispheric interactions (1,000-1,500 AD)

HANDOUT #1
American History Timeline

Add 4–5 people that you believe to be important to the time period that you were assigned. Make sure to take notes as to why your group thinks they are important.

- Three Worlds Meet (Beginnings to 1620)
- Colonization and Settlement (1585-1763)
- Revolution and the New Nation (1754-1820s)
- Expansion and Reform (1801-1861)
- Civil War and Reconstruction (1850-1877)

Notes on the importance of your important people:

HANDOUT #2
Selected Biographies

SUSAN B. ANTHONY 1820-1906



Women's rights activist, social reformer, editor, and writer. Born on February 15, 1820, in Adams, Massachusetts. For most of her life, Susan B. Anthony fought for women's rights, especially the right to vote. Her family followed the Quaker religion and held many strong social and political beliefs. They were supporters of the abolitionist and temperance movements.

Early in her career, Susan B. Anthony worked as a schoolteacher. But she left education to continue her family's tradition of activism. Anthony became involved in the antislavery and temperance movements. But as a woman she encountered many obstacles, including being denied the right to speak at a temperance conference in 1852 because of her gender. It was while she was in this movement that she met Elizabeth Cady Stanton, a social reformer. The two women became friends and allies in the fight for women's rights, especially the right to vote.

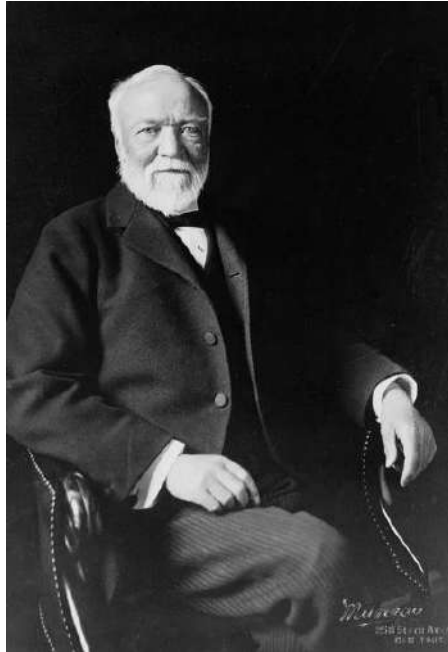
Not only did Susan B. Anthony speak out on women's issues, she established a weekly newspaper to promote awareness and provide information on women's suffrage called *Revolution*, beginning in 1868. The next year she and Stanton founded the National Woman Suffrage Association (NWSA). In 1872, Anthony made the news by trying to vote the presidential election. When she tried to cast a ballot, she was arrested. Anthony hoped that she would be able to fight for the right to vote in court, but she was unsuccessful. She was eventually just fined for her revolutionary act.

Not one to be deterred, Susan B. Anthony continued to fight for women's suffrage. Besides giving speeches and lectures, she worked with Stanton to record the history of the suffrage movement. This resulted in the multivolume set called History of Woman Suffrage. The first volume was published in 1881. Anthony and Stanton worked on the next two volumes, and Anthony edited the fourth volume with assistance from Ida Husted Harper. The final two volumes were produced after Anthony's death.

Susan B. Anthony died on March 13, 1906. All of her hard work paid off in 1920 when the U.S. Constitution was amended to give women the right to vote, which is known as the 19th Amendment. To this day, Anthony is remembered as one of the greatest activists on behalf of women.

Susan B. Anthony: <http://www.biography.com/search/article.do?id=9186331>

ANDREW CARNEGIE 1835-1919



Industrialist and philanthropist. Born on November 25, 1835, in Dunfermline, Fife, Scotland. Although he had little formal education, he grew up in a family that believed in the importance of books and learning. The son of a handloom weaver, Carnegie grew up to become one of the wealthiest businessmen in America.

In 1853 he took a job at the Pennsylvania Railroad. He worked as the assistant and telegrapher to Thomas Scott, one of the railroad's top officials. Through this experience, he learned a lot about the railroad industry and about business in general. While working for the railroad, Carnegie begins making investments. He made many wise choices and found that his investments, especially those in oil, brought in substantial returns. He left the railroad in 1865 to focus on his other business interests, including the Keystone Bridge Company.

By the next decade, most of Carnegie's time was dedicated to the steel industry. His business, which became known as the Carnegie Steel Company, revolutionized steel production in the United States. Carnegie built plants around the country, using technology and methods that made manufacturing steel easier, faster, and more productive. For every step of the process, he owned exactly what he needed: the raw materials, ships and railroads for transporting the goods, and even coal fields to fuel the steel furnaces. This start-to-finish strategy helped Carnegie become the dominant

force in the industry and an exceedingly wealthy man. By 1889, Carnegie Steel Corporation was the largest of its kind in the world.

Some felt that the company's success came at the expense of its workers. The most notable case of this came in 1892. When the company tried to lower wages at a Carnegie Steel plant in Homestead, Pennsylvania, the employees objected. They refused to work, starting what has been called the Homestead Strike of 1892. The conflict between the workers and local managers turned violent after the managers called in guards to break up the union. While Carnegie was away at the time of strike, he was still held accountable for his managers' actions by many.

In 1901, Carnegie made a dramatic change in his life. He sold his business to the United States Steel Corporation, started by legendary financier J. P. Morgan. The sale earned him more than \$200 million. At the age of 65, Carnegie decided to spend the rest of his days helping others. While he had begun his philanthropic work years earlier by building libraries and making donations, Carnegie expanded his efforts in 1900s.

Andrew Carnegie: <http://www.biography.com/search/article.do?id=9238756>

Jackie Robinson 1919-1972



Baseball player, civil rights activist. Born Jack Roosevelt Robinson on January 31, 1919, in Cairo, Georgia. Breaking the color barrier, **Jackie Robinson** became the first African American to play in baseball's major leagues. The youngest of five children, Robinson was raised in relative poverty by a single mother. He attended John Muir High School and Pasadena Junior College, where he was an excellent athlete and played four sports: football, basketball, track, and baseball. He was named the region's Most Valuable Player in baseball in 1938.

During World War II, Robinson served as a second lieutenant in the United States Army from 1942 to 1944. However, he never saw combat due to an altercation during boot camp in Texas. Robinson was arrested and court-martialed after refusing to move to the back of a segregated bus during training. He was later acquitted of the charges and received an honorable discharge. His courage and moral objection to segregation were a precursor to the impact Robinson would have in the major leagues.

After his discharge from the Army in 1944, Robinson played baseball professionally in the Negro Leagues. (At the time, the sport was segregated, and African Americans and whites played in separate leagues.) Robinson, however, was chosen by [Branch Rickey](#), a vice president with the Brooklyn Dodgers, to help integrate major league baseball. He joined the Montreal Royals, a farm team for the Brooklyn Dodgers, in 1945. He moved to Florida in 1946 to begin spring training with the Royals with his first game on March 17, 1946.

Rickey knew there would be difficult times ahead for the young athlete and made Robinson promise to not fight back when confronted with racism, but

rather to remain cool and composed. From the beginning of his career with the Dodgers, Robinson's will was tested. Even some of his new teammates objected to having an African American on their team. People in the crowds sometimes jeered at Robinson, and he and his family received threats.

Despite the racial abuse, particularly at away games, Robinson had an outstanding start with the Royals, leading the International League with a .349 batting average and .985 fielding percentage. His excellent year led to a promotion to the Dodgers, with his debut game on April 15, 1947, marking the first time an African-American athlete played in the major leagues.

Jackie Robinson: <http://www.biography.com/search/article.do?id=9460813>

J. ROBERT OPPENHEIMER 1904-1967



U.S. theoretical physicist. He graduated from Harvard University, did research at Cambridge University, and earned a doctorate from Göttingen University. He returned to the U.S. to teach at the California Institute of Technology (1929–47). His research focused on energy processes of subatomic particles, and he trained a generation of American physicists. In World War II he was named director of the army's atomic-bomb project, later known as the Manhattan Project, and set up the laboratory in Los Alamos, N.M., that remains a principal weapons-research laboratory. He directed the Institute for Advanced Study in Princeton (1947–66). He strongly opposed the development of the hydrogen bomb, and in 1953 he was suspended from secret nuclear research as an alleged communist sympathizer and a security risk; the case, which pitted him against [Edward Teller](#), became a worldwide cause célèbre. In 1963 he was reinstated and awarded the Enrico Fermi Award.

J. Robert Oppenheimer: <http://www.biography.com/search/article.do?id=9429168>

JACOB RIIS 1849-1914



U.S. journalist and social reformer. He immigrated to the U.S. at 21 and became a police reporter for the *New York Tribune* (1877–88) and the *New York Evening Sun* (1888–99). He publicized the deplorable living conditions in the slums of New York's Lower East Side, photographing the rooms and hallways of tenements. He compiled his findings in *How the Other Half Lives* (1890), a book that stirred the nation's conscience and spurred the state's first significant legislation to improve tenements.

Jacob Riis: <http://www.biography.com/search/article.do?id=40211>

ELEANOR ROOSEVELT 1884-1962



First lady, writer, and humanitarian. Born on October 11, 1884, in New York City, New York. The niece of President Theodore Roosevelt, Eleanor was known as a shy child and experienced tremendous loss at a young age. Her mother died in 1892. Two years later, Eleanor became an orphan at the age of 10 with the death of her father. She was sent to school in England as a teenager, an experience that help draw her out of her shell.

In 1905 she married her distant cousin, Franklin Delano Roosevelt. For Eleanor, the early years of her marriage were filled with family activities. The couple had six children: Anna, James, Franklin (who died as an infant), Elliott, Franklin Jr., and John. She did not let her growing family prevent her from helping others. During World War I, she became active in public service, working for the American Red Cross.

After her husband suffered a polio attack in 1921, Eleanor stepped forward to help Franklin with his political career. When her husband became president in 1933, Eleanor dramatically changed the role of the first lady. Not content to stay in the background and handle domestic matters, she showed the world that the first lady was an important part of American politics. Eleanor gave press conferences and even had her own newspaper column entitled My Day. Eleanor spoke out for human rights, women's issues, and children's causes. She also wanted to help the country's poor and stood against racial discrimination.

During World War II, Eleanor supported the war effort and traveled abroad to visit U.S. troops. After her husband's death in 1945, she was selected to be a delegate to the United Nations General Assembly, serving from 1945 to

1953. She also became the chair of the UN's Human Rights Commission. As a part of this commission, she helped to write the Universal Declaration of Human Rights.

Eleanor died of cancer on November 7, 1962. A revolutionary first lady, she was one of the most outspoken women to ever live in the White House. While she had her share of critics, most could agree that she was a great humanitarian who dedicated much of her life to fighting for what she thought was right.

Eleanor Roosevelt: <http://www.biography.com/search/article.do?id=9463366>

RAY KROC 1902-1984



U.S. restaurateur, a pioneer of the fast-food industry. He was working as a blender salesman when he discovered a restaurant in San Bernardino, Calif., owned by Maurice and Richard McDonald, who used an assembly-line format to prepare and sell a large volume of hamburgers, french fries, and milk shakes. Beginning in 1955 Kroc opened his first McDonald's drive-in restaurant in Des Plaines, Ill., paying the brothers a percentage of the receipts. He soon began selling franchises for new restaurants, and he instituted a training program for owner-managers that emphasized automation and standardization. At the time of his death there were some 7,500 McDonald's restaurants worldwide; with more than 25,000 restaurants in the early 21st century, McDonald's was the world's largest food-service retailer.

Ray Kroc: <http://www.biography.com/search/article.do?id=9369349>

HANDOUT #3
WEB PAGE EVALUATION TOOL

Name of web site:

Date:

URL:

Author

Is an author provided?

Is there a way to contact the author?

If the author's name is unfamiliar or not provided, is the site linked to an established authority, like a museum or archive, on the subject?

Are the author's credentials listed? (a doctorate or professor, etc.)

Do the credentials entitle the author to be considered an expert on the topic?

Purpose

Can you identify the purpose of this site?

If yes, what is it?

Is the type of material appropriate for the assignment?

Does the information lead to other sources that are useful?

Is a bibliography included?

Does the information match information found elsewhere?

URL

What does the URL of this site end with?

.gov .edu .com .org .net other_____

Is the URL appropriate for the NHD research project?

Currency

Does the site include the date of its last revision?

Has the site been updated recently?

Does the site include the dates of future updates?

Is the copyright date available?

Are all the links to additional sites still working?

Design

Is the site easy to navigate?

Are the links clearly labeled?

Can you find the desired information easily?

Does the site make good use of graphics and color?

Does the site use correct grammar and spelling?

Is this source credible? How do you know?

HANDOUT #4

Author	Purpose	URL	Currency	Design

Charter School Unit Modification

Guiding Questions

1. Why was this model unit of instruction selected as part of your schools' curricular submission?

This model unit of instruction was selected as part of Kuumba Academy's curricular submission because they are a part of the DE Social Studies Coalition. This unit will lend itself also to discussions of current events issues as the US and global markets have been in the news often as the world focuses on the economy.

Kuumba Academy is expanding its current charter to include students in grades 6-8 under the nationally recognized Expeditionary Learning Model. Within this framework for teaching and learning, the already proven practices at Kuumba Academy will be enhanced by the addition of a hands-on, project-based approach to teaching and learning. The units of instruction within the DE Social Studies Coalition lend themselves well to an inquiry based curriculum.

This unit of instruction falls under the Expedition of "Kuumba's Carbon Footprint" where students will be engaged in critical examinations of the pollution issue. The first investigation involves measuring the volume of the school and completing an inventory of all the items in the school that require electricity. This information, along with the students' estimation of the amount of heating fuel consumed, will be used to calculate the actual carbon footprint of Kuumba Academy. The second investigation focuses on the changing climate of the earth as emission levels in the atmosphere continue to increase. The final investigation of the expedition requires students to travel to various sites in Delaware to investigate systems employed and/or sold to reduce the use of fossil fuels. During these visits, students will meet with building managers and interview them about the process of implementing their alternative energy source and the impact it has on their business. This investigation will help students to draw conclusions about how choices within an economic system can affect the environment in their community and the world. Students will engage in an investigation of the question, "How is the current environmental conservation, the 'Green Movement' affecting market conditions?" Students specifically research gasoline and oil prices, hybrid vehicles, and solar-powered homes. Students conduct interviews with home, appliance and furniture store owners/managers, examining if there has been a shift in goods purchased in response our Planet's failing health. Students will also conduct on-site interviews with individuals or groups utilizing systems used to reduce Kuumba's carbon footprint.

2. What modifications have been made to the model unit of instruction to meet the specific needs of the student population your school serves?

No modifications have been made to this model unit of instruction. Imbedded into the unit are suggestions for differentiation, so the needs of all learners can be met through this unit as is.

3. What modifications have been made to the model unit of instruction that reflect the resources (human, time, building, technology etc.) available to your school?

No modifications have been made to this unit of instruction

4. Describe any other modifications that have been made to the model unit of instruction that will assist in the curricular review for your school.

No modifications have been made to this unit.

Delaware Model Unit Gallery Template

This unit has been created as an exemplary model for teachers in (re)design of course curricula. An exemplary model unit has undergone a rigorous peer review and jurying process to ensure alignment to selected Delaware Content Standards.

Unit Title: **How Markets Work**

Adapted by: **Rebecca N. Reed, Red Clay Consolidated School District**

Piloted/Revised by: **John Thomas, Red Clay Consolidated School District**

Content Area: **Economics**

Grade Levels: **6-8**

Summary of Unit

In a market economy, prices of **goods and services** along with quantities demanded and produced continually change. Changes in supply and demand occur because of many factors. Understanding the market forces and situations that cause supply and/or demand to change is essential to understanding how prices are determined.

Numerous factors cause supply to change. Advances in technology lower production costs and increase supply. For example, robots replacing workers on assembly lines will reduce a manufacturer's labor costs, causing prices of goods and services to decrease. Another factor that affects supply is a change in the costs and availability of **productive resources** caused, for example, by such unexpected or natural events as drought, flood, war, and labor strikes. An increase in costs results in a decrease in available supply. Suppliers are willing and able to supply less at every price. A decrease in productive resources costs results in an increase in supply. Suppliers are willing and able to supply more at every price. Taxes, such as sales and excise taxes, also affect supply. An increase in taxes results in a decrease in supply, while **subsidies** will cause supply to increase. Another factor that affects supply is the number of sellers.

Changes in demand can be attributed to a number of factors. For grades 6–8, the factors or determinants include those from prior grades and changes in the price and availability of **substitute and complementary goods**. An increase in the market equilibrium price of a good will cause an increase in the demand for its substitute. A decrease in the market equilibrium price of a good will cause a decrease in the demand for its substitute. For example, consider the substitute goods chicken and fish. If the price of chicken increases and the price of fish remains the same, the demand for fish is likely to increase. If the price of chicken decreases and the price of fish remains the same, the demand for fish is likely to decrease. Complementary goods interact differently. For example, if the price of DVD players increases, the demand for DVDs will probably decrease. If the price of DVD players decreases, the demand for DVDs will probably increase.

By the end of 8th grade, students should be able to **graph supply and demand** curves from **supply and demand schedules** and predict how the curves will shift when any of the determinants or forces change and the impact that will have on equilibrium price and quantity.

This unit is based on a series of lessons from the National Council for Economic Education which will provide students with the tools necessary to understand how prices of goods and services in a market economy are determined and how prices change.

The lessons of this unit were adapted from:

- "Focus: Middle School Economics," – published by the National Council on Economic Education, 1996
 - "Mad Cattlemen Sue Oprah", EconEdLink online lesson, <http://www.econedlink.org/lessons/index.php?lesson=15&page=teacher>
 - "Master Curriculum Guides in Economics: Teaching Strategies—5–6," published by the National Council on Economic Education
 - "Strategies for Teaching Economics: Junior High School Level (Grades 7-9)," published by the Joint Council on Economic Education, 1991
-

Stage 1 – Desired Results

(What students will know, do, and understand)

Delaware Content Standards

- **Economics Standard One 6-8a:** Students will analyze how changes in technology, costs, and demand interact in competitive markets to determine or change the price of goods and services.
- **Economics Standard Two 6-8a:** Students will analyze the role of money and banking in the economy, and the ways in which government taxes and spending affect the functioning of market economies.

Big Ideas

- Market Economy
- Supply and Demand

Enduring Understandings K–12

Students will understand that:

- Due to scarcity, individuals, families, communities, and societies as a whole must make choices in their activities and consumption of goods and services.
- Goods, services, and resources in a market economy are allocated based on the choices of consumers and producers.
- Effective decision making requires comparing the additional costs of alternatives relative to the additional benefits received.

Essential Questions

- Under what market conditions does price change?
 - How is demand changed when income, taste, number of buyers, and prices of other goods change?
 - How does supply influence prices of goods and services in a market economy?
 - How is supply affected when input costs, number of producers, and taxes change?

Knowledge and Skills

Students will know...

- Concept vocabulary: demand, supply, price, quantity, increase, decrease, surplus, shortage equilibrium price, input costs, productive resources, intermediate goods, stockholder, market clearing price.
- Prices are determined by an interaction of supply and demand.
- Prices change in a market economy because of changes in resource availability, technology, demand, and markets for other goods.

Students will be able to...

- Graph supply and demand curves.
- Predict how prices in a market economy change given a specific market change.
- Explain how prices change using content-appropriate vocabulary.

Stage 2 – Assessment Evidence

(Evidence that will be collected to determine whether or not Desired Results are achieved)

This summative assessment is a transfer task that requires students to use knowledge and understandings to perform a task in a new setting or context. The assessment and scoring guide should be reviewed with students prior to any instruction. Students should do the assessment after the lessons conclude.

Essential Question

- Under what market conditions does price change?

Prior Knowledge	Now that you have learned how prices in a market system are determined and how prices change, you will apply that knowledge to a real situation that occurred in 1996.
Problem	Oprah Winfrey is a successful television talk show host. In 1996, her guest was Howard Lyman, who talked about the beef industry. After the show, cattle prices decreased to near 10-year lows causing cattle ranchers to lose money. Price of beef (per 100 pounds) went from \$61.90 to mid-\$50. Cattle ranchers blamed their losses on the statements made by both Oprah Winfrey and Howard Lyman on the show and sued Winfrey and Lyman for \$12 million dollars. Winfrey and her lawyers believed there were other reasons behind the price decrease. (Civil Case # 2:97-CV-147-J, United States Federal District Court, Northern District, Amarillo Division – Texas Beef Group, etc. v. Winfrey and Lyman)
Role	Your role will be to help create a defense for Winfrey and Lyman. You will evaluate and explain how factors, other than the television show, might have caused the price of beef to decrease. Be sure to consider supply and demand factors.
Product	Your defense might be a poster with graphs and explanations, a PowerPoint presentation, a deposition from an “expert” witness, or closing statement to the judge and jury, an editorial or letter that

	explains the market changes, or another format if your teacher approves of your idea.
Criteria for an Exemplary Response	Your defense should include: <ul style="list-style-type: none"> • A list of factors that would affect the market for beef. • An explanation on how each factor would change the price .of beef. • Summary of your findings based on your explanations.
Resources	<ul style="list-style-type: none"> • Official Transcript of Oprah Winfrey Show, April 15, 1996 http://vegsource.com/lyman/oprah_transcript.htm • News Article, "Texas Cattlemen v. Howard Lyman and Oprah" http://vegsource.com/lyman/lawsuit.htm • See Addendum T-1 for Task • Selected News Articles from EconEdLink Online Lessons http://www.econedlink.org/lessons/index.cfm?lesson=EM15 • See Addendum T-2 for Task

Rubric

Scoring Category			
This defense provides ...	Score Point 3	Score Point 2	Score Point 1
an identification of factors that would affect the market for beef.	Full or comprehensive list of all factors: including technology, markets, other goods, and costs.	Most factors included with only one or two factors not mentioned.	Few factors included in defense.
an explanation of each factor that would change the price for beef.	Valid and relevant explanation given for the factors identified.	Valid explanation of how factors change the market price but may not be relevant to the situation.	Few or missing explanations.
a summary of findings based on your explanations.	Complete summary with a strong and convincing conclusion.	Complete summary.	Summary is vague without appropriate explanation.
use of content-appropriate vocabulary in order to demonstrate understanding.	Content-appropriate vocabulary is well developed and evident.	Some evidence of content-appropriate vocabulary.	Minimal evidence of content-appropriate vocabulary.

10 to 12 points = Above the standard
7 to 9 points = Meets the standard
4 to 6 points = Below the standard

Student Self-Assessment and Reflection

When students are required to think about their own learning, to articulate what they understand and what they still need to learn, achievement improves.

– Black and William, 1998; Sternberg, 1996; Young, 2000.

How a teacher uses the information from assessments determines whether that assessment is formative or summative. Formative assessments should be used to direct learning and instruction and are not intended to be graded.

The Checks for Understanding at the end of each instructional strategy should be used as formative assessment and may be used as writing prompts or as small group or whole class discussion. Students should respond to feedback and be given opportunities to improve their work. The rubrics will help teachers frame that feedback.

An interactive notebook or writing log could be used to organize student work and exhibit student growth and reflection.

Stage 3 – Learning Plan

(Design learning activities to align with Stage 1 and Stage 2 expectations)

Lesson 1

Essential Questions

- Under what market conditions does price change?
 - How is demand changed when income, taste, number of buyers, and prices of other goods change?

Background

Demand is defined as the different quantities of a resource, good, or service that consumers are willing and able to purchase at various prices during a specific time period. Decisions by consumers depend on their income, tastes and fads, number of buyers, and the price of other goods. Generally, the lower the price of something, more of it will be purchased. Conversely, the higher the price of something, less of it will be purchased.

Delaware Social Studies Standards

Integrated in Instructional Strategies

- **Economics Standard Two 6-8a:** Students will analyze the role of money and banking in the economy, and the ways in which **government taxes** and spending **affect the functioning of market economies**.

Instructional Strategies

Strategy 1 – Gathering Information/Building Background Simulation

Students will participate in a market simulation in which they are the consumers (buyers) and producers (sellers) in a market economy for video games. Explain that this unit will

focus on the forces of buyer's demand and seller's supply and that the unit will refer to this simulation throughout.

Note to Teacher: There are many market simulation lessons and any one of those lessons can be substituted for the video game market simulation. This activity will be repeated later in the unit (Lesson 3), but with an extended application of graphing. This activity helps to "hook" students to the concept of markets.

Create video games and money cards per instructions on [Addendum 1-1A](#). Make seller and buyer cards different colors for easier sorting.

Explain to students that they will be learning about markets and the best way to learn about markets is to experience how a market works. Explain that this is an activity that will simulate a real market with buyers and sellers.

Distribute one video game card to one-half of the students in the class and a money card to the other half. Explain the market procedure as follows:

Some of you are buyers and some of you are sellers. Each of you has instructions on the card you were given. Buyers are told how much they can spend, and sellers are told the minimum value of their video games for sale. In this simulation, you will seek out either a buyer or seller with whom to make a deal. Try to get the best deal that you can. Once two of you have agreed on a price, bring your cards to the teacher, and state the amount you agreed upon. The teacher will give you each a new card and you should return to the market to try to make another deal.

Record student agreements on a chart, such as in [Addendum 1-1B](#). Facilitate several rounds of 5 minutes each. At the end of each round, show students the results of the round. Students will begin to realize that there is an equilibrium price or a price at which most deals are made. At the end of three rounds ask:

Check for Understanding

- ❖ Who are the participants in a market? [Buyers and sellers.]
- ❖ What do buyers try to do? [Buy at the lowest price.]
- ❖ What do sellers try to do? [Sell at the greatest price.]
- ❖ At which price are buyers and sellers most often in agreement? [Refer to frequency chart created during the simulation.]

Strategy 2 – Gathering Information/Building Background Vocabulary Continuum

Have students work in pairs to learn about the vocabulary necessary to understand the Law of Demand. The following vocabulary will be the focus for this unit:

- | | |
|------------|------------|
| ▪ Demand | ▪ Increase |
| ▪ Supply | ▪ Decrease |
| ▪ Price | ▪ Shortage |
| ▪ Quantity | ▪ Surplus |

Have each pair of students identify where they would place each vocabulary word on the continuum (see [Addendum 1-2A](#)).

Vocabulary Word or Concept	I have never heard this word.	I have heard this word but not sure what it means.	I know the definition of this word.	I know this word and can give an example.
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Review the terms with students. Sample responses include:

- Demand – The amount consumers are willing and able to buy at various prices.
- Supply – The amount producers are willing and able to provide at various prices.
- Price – The sum or amount of money.
- Quantity – The amount of a good or service.
- Increase – To make or become greater.
- Decrease – To make or cause to become less.
- Shortage – When demand is greater than supply, less than expected.
- Surplus – When supply is greater than demand, excess.

Note to Teacher: Students should be familiar with the vocabulary associated with demand as the term is first introduced in Grades 4–5 in Economic Standard 1.

Check for Understanding

- ❖ **Vocabulary Sort** - Make one copy of [Addendum 1-2B](#) and [Addendum 1-2C](#) for each pair of students. Working in pairs, have students cut/separate the definitions on Addendum 1-2C and match each definition to each vocabulary word.

Strategy 3 – Application Simulation

Note: In order to examine how changes in technology, costs, and demand interact in markets to determine or change the price of goods and services, only one change at a time is examined. For example, if the price of one brand of soda changes, then we examine that single change in terms of price and quantity. Prices of other brands may change, but for instructional purposes, only the single change is examined. This is the law of *ceteris paribus*, which is a Latin term meaning that other factors remain unchanged. *Ceteris paribus* is commonly used as an assumption when conducting a wide variety of economic analyses. By holding everything else constant, the *ceteris paribus* assumption makes it possible to identify the cause-and-effect relation between two factors.

Display a headline of a recent economic event involving a change in demand, supply, price etc., or use the following:

Decrease in Demand Forces Local Hardware Store to Close

Explain to students that economists analyze consumer behavior, including demand for goods and services. Ask students to think about the headline using the terms from Strategy 2 above, and then write a sentence using the content-appropriate vocabulary from Strategy 2 that describes in economic terms what is happening. For example, using the headline above, a student might write, “*The hardware store had a surplus because demand decreased.*”

Introduce the following activity by explaining that students will participate in a demonstration that will show how demand for a product is determined.

For this activity you will need 4 different types of chewing gum of similar flavor and size.

Distribute 4 different packs of chewing gum (or alternative good) to 4 student volunteers. Ask each of the 4 volunteers to come up with a short (one-minute) commercial for the gum

that they were given. Allow each student to present their "pitch" for the gum. Direct each student that will share a commercial to stand in a separate area in the classroom. Different corners work well.

After the 4 students have shared their commercial, tell the rest of the students in the class that they are to assume that the 4 sellers have additional packs to sell and that they now are going to simulate buying the gum. Tell students that they each are to pretend they have \$3 to spend on gum, and that each pack of gum can be bought for \$1 a pack. Reinforce that each student only has \$3 to spend. Allow students to travel to the different corners in the room and place "orders" for the gum of their choice. Students that shared the commercial record the number of packages of gum that are requested or demanded by the class.

After all students have made their choices, have the 4 volunteer gum sellers reveal the total number of their packs demanded. Announce which package of gum was in the greatest demand or most popular.

Ask the student with the most popular gum what he/she would do if he/she found out how popular the gum was. Prompt the student to say, "Increase the price of the gum." Then explain that everyone who purchased the popular gum now has a choice:

1. Purchase the same gum for \$1.50 per package; purchase another gum for \$1.
2. Do nothing.

Record the number of packages demanded at \$1.50 in the chart ([Addendum 1-2D](#)). Repeat the scenario using prices of \$2, \$2.50, and \$3. Record student responses on Addendum 1-2D.

Pair students together. Ask one student to turn to his or her partner and respond to the question:

- As the price of the gum increased, what happened? [Demand decreased or fewer packages of gum were demanded.]

Now have students graph the demand curve using the data from the activity. A blank graph is attached as [Addendum 1-2E](#). Teachers may want to pre-label the price and quantity axis. Show a model to help students acquire this skill.

Debrief: Ask students:

- How did personal tastes affect demand?
- How did the number of buyers affect demand?

Check for Understanding

- ❖ Have students make generalizations that will explain the behavior of consumers in the simulation. The goal is for students to reach the understanding that is called the Law of Demand: The lower the price of something, more of it will be purchased. The higher the price of something, less of it will be purchased.

Examples might include:

- When I wanted gum, I tried to pay less for it so that I could buy more.
- When the price was too high, I did not pay it.

Lesson 2

Essential Questions

- Under what market conditions does price change?
 - How does supply influence prices of goods and services in a market economy?
 - How is supply affected when input costs, number of producers, and taxes change?

Background

Supply is defined as the different quantities of a resource, good, or service that producers are willing and able to offer for sale at various prices during a specific time period. Decisions by suppliers of how much to produce reflect the cost of producing the product. As price increases, the amount of products or services producers are willing and able to make is likely to increase. Conversely, as price decreases, the amount producers are willing and able to make is likely to decrease.

Instructional Strategies

Strategy 1 – Gathering Information/Building Background Round Robin

Have students work in groups of three to quickly list the productive resources needed to make a school T-Shirt. Once an adequate number of productive resources has been determined by each group, have students separate the resources into categories: natural resources, human resources, capital goods, and intermediate goods.

Note to Teacher: The concept of productive resources is first introduced through the K–3 benchmarks, and students should require minimal review of terms. Students may refer to intermediate goods or goods that are pre-manufactured and used as an input. For a T-Shirt, intermediate goods include thread, cloth, etc. If students do suggest intermediate goods, it is important to recognize the productive resources that go into making the intermediate goods, such as cotton.

Debrief: Ask students to share their category lists and correct any errors.

Check for Understanding

- ❖ As a T-Shirt producer, you have just purchased large quantities of cotton at a price considerably less than before. How might this cotton purchase affect your production of T-Shirts? Explain your answer.

Rubric

- 2 – This response gives a valid effect with an accurate and relevant explanation.
- 1 – This response gives a valid effect with an inaccurate, irrelevant, or no explanation.

Strategy 2 – Extending and Refining Think – Pair – Share

Distribute [Addendum 2-2A](#) to students. Ask students to read the handout then work with a partner to complete the chart of production options.

Answer Key

Option Number	Number of shirts per hour	Total labor per hour	Total labor per shirt (Divide Total Labor per hour by Number of shirts per hour)	Material cost per shirt	Other costs per shirt	Cost per shirt	Price per shirt
A	10	\$100.00	\$10.00	\$4.00	\$3.00	\$17.00	\$20.00
B	32	\$400.00	\$12.50	\$4.00	\$3.00	\$19.50	\$20.00
C	50	\$80.00	\$1.60	\$4.00	\$9.00	\$14.60	\$20.00

Debrief or Summarize: It is important for students to identify what input costs or variable changes with each option. Option A has no changes to the current production. With Option B, the number of laborers or human resources has increased which increases the output. With Option C, the number of laborers has decreased, and the number of machines increased (change in capital goods). When faced with a production decision, a producer will analyze the input costs and make changes. Each option is further evaluated from different perspectives in the strategy that follows, Lesson 2, Strategy 3 – Application.

Check for Understanding

- ❖ Which option do you think Tamira should follow? Explain your answer.

Any option will earn a profit. Each option has merit. The validity of a student's response hinges upon his or her explanation.

- ❖ Option A – More employees than option C and a profit.
- ❖ Option B – Greatest number of employees but small profit amount.
- ❖ Option C – Few employees and greatest profit.

Rubric

2 – This response gives a valid option with an accurate and relevant explanation.

1 – This response gives a valid option with an inaccurate or irrelevant explanation.

Note: Because all three options are valid, do not score a response with only an option and no attempt at an explanation as a score of 1.

Strategy 3 – Application

Jigsaw Activity

Divide the class into 6, equally sized groups to work on [Addendum 2-3A](#). Distribute one role to each group. Have each group then share with the class which option that role would prefer and why.

Roles/options:

- Tamira – more than likely would want the greatest profit
- Stockholders – since she sold stock, the stockholders want the greatest profit
- Current workers – want to keep their jobs
- Community leaders – keep the people that vote for them happy
- Unemployed – want jobs
- Consumers – want to pay the lowest price

Addendum 2-3A Answer Cues:

- Tamira Ramirez/any option, but Option 3 gives the greatest profit
- Stockholders/Option 3 – greatest profit
- Current workers/Option 1 or 2 – jobs intact
- Community or government leaders/Option 2 – increase employment
- Unemployed people in the community/Option 2 – creates jobs
- Consumers/any option – the market price of the T-Shirt has not changed

Check for Understanding

- ❖ Why would Tamira's production decision change if the market price of T-Shirts decreased to \$15? Explain your answer.

Rubric

2- This response includes a valid reason with a relevant and an accurate explanation.

1- This response includes a valid reason with an irrelevant or inaccurate explanation.

Sample response: If the market price of T-Shirts decreases, Tamira will produce fewer T-Shirts or in this case choose Option C.

Lesson 3

Essential Questions

- How are prices of goods and services determined in a market economy?
- Under what market conditions does price change?
 - How is demand changed when income, taste, number of buyers, and prices of other goods change?
 - How does supply influence prices of goods and services in a market economy?
 - How is supply affected when input costs, number of producers, and taxes change?

Background

The market (price) system answers the basic economic questions of what, how, and for whom to produce in the marketplace. The demand decisions of consumers and the supply decisions of producers interact to establish prices and quantities exchanged. Demand and supply analysis is useful to explain how a price system guides these decisions.

Market prices and the quantities exchanged are determined by the forces of demand and supply. At prices where the quantity supplied exceeds the quantity demanded, a **surplus** will result. Barring outside interference in the market mechanism, prices will drop so consumer and producer decisions align with one another. As prices fall, the quantity demanded will increase and the quantity supplied will decrease, thereby eliminating the surplus. At prices where the quantity demanded is greater than the quantity supplied, a **shortage** will exist.

Barring outside interference in the market mechanism, prices will tend to increase so that consumer and producer decisions align with one another. As prices rise, the quantity demanded will decrease and quantity supplied will increase, thereby eliminating the shortage.

Surpluses and shortages rarely remain in a freely operating market since market prices tend to change automatically to eliminate them. The market is driven toward a price where the quantity demanded is equal to the quantity supplied. At this price, a market equilibrium is achieved. There are no surpluses or shortages. The quantity bought is identical to the quantity produced and offered for sale, so the market has been cleared. This price can persist in the market since there are no reasons for the price to rise or fall. Economists refer to the price where quantity demanded equals quantity supplied as the **equilibrium price or the market-clearing price**. Graphically, this point is represented by the intersection of the demand and supply curves.

From, "Market Madness," Master Curriculum Guides in Economics: Teaching Strategies 5-6, pages 57-62.

Instructional Strategies

Strategy 1 – Gathering Information/Building Background

Think – Pair – Share

Note to Teacher: This strategy has been previously introduced to students with Lesson 1. This strategy should be repeated but with additional graphing and questioning. Students participate in a market simulation in which they are the consumers (buyers) and producers (sellers) in a market economy for video games.

Have students recall the Video Game Market simulation from Lesson 1. Ask students the following questions and think-pair-share with a partner:

- What were the roles in the Video Game Market simulation? [Buyers and Sellers]
- What was the goal of buyers? [Buy at the lowest price]
- What was the goal of sellers? [Seller at the greatest price]

Tell students, "We looked at the price where most buyers and sellers agreed on a price. This point where buyers and sellers most often agree is known as 'Market Equilibrium'."

Write or display the term "Market Equilibrium" and explain that the next lessons in this unit will focus on how prices of goods and services are determined in a market economy.

Have students recall the chewing gum simulation in Lesson 1. Ask, "What happened to the price of most demanded gum in the simulation?" [It increased] "How did consumers react when the price of gum changed?" [They wanted fewer packs at the increased price; they bought a different kind of gum, etc.]

Ask students to recall the T-Shirt activity in Lesson 2. Ask, "What should Tamira do if T-shirts now can be sold for \$25 a shirt instead of \$20?"

Using a thumbs-up (increase), thumbs-down (decrease), or thumbs-horizontal (no change/equal) technique, have students respond to the following:

- As price decreases, the quantity demanded (increases – thumbs up).
- As price decreases, the quantity supplied (decreases – thumbs down).
- As price increases, the quantity demanded (decreases – thumbs down).
- As price increases, the quantity supplied (increases – thumbs up).

Tell students that they will learn more about when there is market equilibrium and when there is not market equilibrium (surplus or shortages).

Check for Understanding

- ❖ Describe a time when you waited in line to purchase a product. Explain the market situation surrounding the purchase.

Rubric

1 – This response includes a valid explanation of a market.

Strategy 2 – Extending and Refining Simulation

Repeat Lesson 1-1 (Video Game Market with students). Have students graph the Video Game Market using the data on [Addendum 3-2A](#) and answer questions on [Addendum 3-2B](#).

Reinforce the terms “surplus” and “shortage” by having students analyze the Video Game Market graph at prices other than the market equilibrium price.

Have students find the price of \$70 on the graph. Ask which is greater, quantity demanded or quantity supplied?

Next, have students locate the price of \$50 on the graph. Ask which is greater, quantity demanded or quantity supplied?

Ask students to explain the concepts of shortage and surplus using the terms demand and supply.

- Shortage – When the quantity demanded is greater than quantity supplied.
- Surplus – When the quantity supplied is greater than the quantity demanded.

Ask students to describe a time when they experienced a shortage or surplus. Shortages often occur when a new product is introduced, like a new game system. When surpluses exist, stores will hold sales and decrease the price of goods.

Check for Understanding

- ❖ Complete [Addendum 3-2B](#)

Answer cues:

1. Buyer or seller
2. Buyer – when they did not have much money
3. Seller – when the video games were expensive
4. Price – approximately \$58, quantity-22
5. If the market equilibrium was known beforehand, students could offer to buy or sell close to equilibrium or request a new card
6. Be greater
7. Be less
8. Decrease
9. Remain unchanged

Strategy 3 – Application

Use an online lesson, *Those Golden Jeans* at <http://www.econedlink.org/lessons/index.php?lesson=557&page=teacher>

Many opportunities for students to graph market data can be found in the online lesson, *Those Golden Jeans*. [Addendum 3-3A](#) is a reproduction of the assessment for the lesson.

Students should analyze information about the market for DVD players without graphing the data. If necessary, students can graph the data using [Addendum 1-2E](#).

Check for Understanding (found on [Addendum 3-3A](#))

- ❖ At what price should ACE Electronics sell one DVD? Use what you know about markets to explain your answer.

Rubric

2- This response gives a valid price with an accurate and relevant explanation.

1- This response gives a valid price with an accurate, relevant or no explanation.

Sample Cue: ACE should sell the DVD for \$279. At this price, the quantity demanded equals the quantity supplied.

- ❖ Have students read Zezima, Katie, "Demand and Price Are Falling for Lobster," *New York Times*, September 1, 2008, and answer the questions on [Addendum 3-3B](#). Article is reproduced on [Addendum 3-3B](#).
<http://www.nytimes.com/2008/09/02/us/02lobster.html?ref=us#>

Lesson 4 – Determinants of Demand

Essential Questions

- In a market economy, how and why do prices and quantities of goods and services change as demand changes?
 - When income, taste, number of buyers, and prices of other goods change, how is demand affected?

Background

In a market economy, prices of **goods and services** along with quantities demanded and produced continually change. Changes in supply and demand occur because of many factors. Understanding the market forces and situations that cause supply and/or demand to change is essential to understanding how prices are determined.

For grades 4–5, the factors or determinants that cause a change in demand are changes in consumers' income, taste and fads, and a change in the number of consumers in a market (from Clarifications Document for grades 4–5).

Changes in demand can be attributed to a number of factors. For grades 6–8, the factors or determinants include those from prior grades and changes in the price and availability of **substitute and complementary goods**. An increase in the market equilibrium price of a good will cause an increase in the demand for its substitute. A decrease in the market equilibrium price of a good will cause a decrease in the demand for its substitute. For example, consider the substitute goods chicken and fish. If the price of chicken increases and the price of fish remains the same, the demand for fish is likely to increase. If the price of chicken decreases and the price of fish remains the same, the demand for fish is likely to decrease. Complementary goods interact differently. For example, if the price of DVD players increases, the demand for DVDs is likely to decrease. If the price of DVD players decreases, the demand for DVDs is likely to increase.

Note to Teacher: An interactive online version of this lesson can be accessed at *Bubble-Up Soda – Online Interactive Lesson*

Instructional Strategies

Strategy 1 – Gathering Information/Building Background Journal Writing

Share the following headline with students. Pair students together to graph how price and quantity of soda would change based on the headline.

**SCIENTISTS PROVE THAT PEOPLE WHO DRINK AT
LEAST 4 CANS OF SODA PER DAY LIVE LONGER**

Once students have shared the graph, explain that students will learn about the ways that demand for goods and services can change.

Check for Understanding

- ❖ How is the market price and quantity affected if people demand more of a product? Support your answer with an example.

Rubric

3 - This response gives a valid effect for both price and quantity with an accurate and relevant example.

2 - This response gives a valid effect for either price or quantity with an accurate and relevant example.

1 - This response gives a valid effect for either price or quantity with an inaccurate, irrelevant, or no example.

Answer Cue: When people demand more of a product, both the price and quantity demanded will increase.

Strategy 2 – Extending and Refining Graphing

Students will graph the demand curve for Bubble-Up Soda and changes in demand and label the curve as **D₁**. Reproduce [Addendum 4-2A](#) for students.

Have students plot prices in \$.05 increments and quantity by 2s.

- What does quantity demanded mean? (The amount of a good or service people are willing and able to buy at a particular price, other things being equal.)
- What is the quantity demanded at a price of \$1 (5) and \$.25 (20)?
- As price decreases, what happens to the quantity demanded? (increases)
- As price increases, what happens to the quantity demanded? (decreases)
- What does the demand curve look like? (It is downward sloping.)
- Why is the curve downward sloping? (Because as the price goes down the quantity demanded goes up and as price goes up the quantity demanded goes down.)

Next have students graph additional Bubble-Up Soda demand curves, labeling **D₂** and **D₃** (see [Addendum 4-2B](#)).

Note to Teacher:

Share with students the following mnemonic device: **IRDL** the Turtle Knows How to Shift Curves

- Increase to the **Right**
- Decrease to the **Left**

An **I**ncrease in demand for a product will shift the curve **R**ight. A **D**ecrease in demand will shift the curve to the **L**eft. Memorizing this device may be very helpful to students and the mnemonic device holds for changes in supply as well.

Share with students [Addendum 4-2C](#) (a very important activity for purposes of this standard), and have students use the spaces in Columns 2 and 3 to explain changes in each of the Demand Determinants (column 1) that might Increase (Column 2) and Decrease (Column 3) demand. Write scenarios to support both increases and decreases given a change in factors of demand.

Differentiation Strategy – Give students the scenarios in the Answer Key and have students identify where in the chart the scenarios belong. Students should jigsaw or work in pairs or small groups to complete the task.

Checks for Understanding

- ❖ Schools across the country stop using textbooks. What will happen in the market for textbooks? Why? (Demand will decrease because there will be fewer consumers in the market.)
- ❖ Doctors have excellent results using vitamin E to cure acne. What will happen in the market for vitamin E? Why? (Demand will increase because there is a change in consumer tastes and preferences.)
- ❖ A law is passed guaranteeing students ages 10 and older a minimum allowance of \$10 per week. What will happen in the market for compact discs? Why? (Demand will increase because consumer income increases.)
- ❖ The price of Bola Cola (a substitute for Bubble Soda) decreases. What will happen in the market for Bubble Soda? Why? (Demand for Bubble Soda will decrease because the price of a substitute good decreases.)

The students should first answer in writing, and then as a class, follow up by asking students to give a “thumbs up” if demand would increase or a “thumbs down” if demand would decrease.

Strategy 3 – Application Collaborative Partners

Have students work in pairs to complete one of the authentic tasks below. At least one supply and demand graph should be used to support responses.

1. Ask students to write headlines illustrating the five demand shifters. Write the best examples with markers on colored paper to create a newspaper front-page bulletin board. Write short news stories to fit under each headline.
2. The current group of adolescents represent the “Baby Bounce.” As attention moves away from the Baby Boomers, many manufacturers are recognizing the buying power of teens. Ask students to select one of the goods or services discussed in the lesson. Instruct them to write about the product, relating it to the demand shifters.
3. Instruct students to look through newspapers and magazines for articles and ads related to the demand shifters for a product. (Famous athlete advertising a product: change in tastes and preference; article about need for more skilled nursing care: change in the number of consumers in the market; article about cancer-causing agent: change in consumer tastes and preferences; article about increase in taxes: change in consumer incomes.)

4. Have students design a mall of the future that caters to the tastes and preferences of teens. Their drawing or floor plan should be labeled to reflect any trends they anticipate.

Check for Understanding

- ❖ In a market economy, how do prices and quantities of goods and services change as demand changes? Support your answer with an example.

Rubric

2-This response gives a valid explanation with an accurate and relevant example.

1-This response gives a valid explanation with an inaccurate, irrelevant or no example.

Sample Cue: Accept reference and examples of any of the determinants of demand.

- ❖ When income, taste, number of buyers, and prices of other goods change, how is demand affected?

Sample Answer Matrix: (**Note to Teacher:** in most cases when a factor of demand increases, then demand increases. Changes in the price of complements will be the exception to the rule. Ask students to provide examples of when a change in each factor affected the price and quantity of a good.)

Factor	Increase	Decrease	Student Examples
Income	Demand Increases	Demand Decreases	
Taste/Fads	Demand Increases	Demand Decreases	
Number of Buyers	Demand Increases	Demand Decreases	
Price of Complements	Demand Decreases	Demand Increases	
Price of Substitutes	Demand Increases	Demand Decreases	

Lesson 5 – Determinants of Supply

Essential Questions

- In a market economy, how and why do prices and quantities of goods and services change as supply changes?
 - How is supply affected when input costs, number of producers, and taxes change?

Background

In a market economy, prices of **goods and services** along with quantities demanded and produced continually change. Changes in supply and demand occur because of many factors. Understanding the market forces and situations that cause supply and/or demand to change is essential to understanding how prices are determined.

For grades 4–5, the factors or determinants that cause a change in supply are change in the cost of production (natural, human, and capital resources), the change in number of sellers in the market, or government actions (from Clarifications Document for grades 4–5).

Numerous factors cause supply to change. Advances in technology lower production costs and increases supply. For example, robots replacing workers on assembly lines will reduce a manufacturer's labor costs, causing prices of goods and services to decrease. Another factor that affects supply is a change in the costs and availability of **productive resources**, caused, for example, by such unexpected or natural events as drought, flood, war, and labor strikes. An increase in costs results in a decrease in available supply. Suppliers are willing and able to supply less at every price. A decrease in productive resources costs results in an increase in supply. Suppliers are willing and able to supply more at every price. Taxes such as sales and excise taxes also affect supply. An increase in taxes results in a decrease in supply, while **subsidies** will cause supply to increase. Another factor that affects supply is the number of sellers.

Instructional Strategies

Strategy 1 – Gathering Information/Building Background Journal Writing

Share the following headline with students. Pair students together to graph how price and quantity of soda would change based on the headline.

**NEW INVENTION CAN MAKE TWICE AS MANY
T-SHIRTS IN ONE HOUR AS OLD MACHINES**

Ask: Does this event affect demand or supply? [This is a change in supply.]

Follow-up questions should include: How does this event affect demand or supply? How does the graph help explain that effect?

Tell students they will learn about the ways that the supply for goods and services can change.

Check for Understanding

- ❖ When suppliers react to an increase in the costs of inputs, what is the expected effect on market equilibrium (price and quantity)?

Rubric

2- This response gives a valid effect for both price and quantity. [Price increases; quantity decreases.]

1- This response gives a valid effect for either price or quantity.

Strategy 2 – Gathering Information and Building Background Scenario Completion

Have students recall Lesson 2 and Tamira's T-Shirts. Tell students that in Lesson 2, students evaluated different production methods and subsequent profits. This lesson will focus on production costs and inputs.

Ask students to name the major categories of factors of production—natural resources, intermediate goods, human resources, and capital goods.

A change in price of factors of production will cause a change in the quantity supplied. Other factors, called determinants, also affect supply. This activity will introduce those determinants to students.

Have students complete [Addendum 5-2A](#) in groups or pairs. Students should read each scenario and predict how a supplier would react. Have students share headlines with other students in the group for group approval or correction.

Check for Understanding

- ❖ Students will complete [Addendum 5-2B](#) with examples of headlines. In groups, students should write newspaper headlines that reflect changes in the supply of homes. For example:

Hurricane Damages Forests That
Produce Building Lumber

Strategy 3 – Extending and Refining Graphing Supply and Demand

Like changes in demand, changes in supply can also be graphed. Tell students that they will graph supply and changes in supply for a DVD manufacturing company.

Give each student [Addendum 5-3A](#) and have them read the scenario in order to graph the supply curve.

Note to Teacher: Explain to students that, in the chart, a **change in Capital Goods is viewed as a Change in Technology**. This can be reviewed as separate changes. For example, a specific change in Capital Goods might be that a machine is no longer being produced because of safety issues. A specific change in Technology might be the replacement of one capital good for another such as hand-held scissors versus a machine that stamps out pieces.

In [Addendum 5-3A](#), each determinant of supply is presented so students see various ways that supply is affected. For example:

- Scenario 1 – Increase in input costs
- Scenario 2 – Decrease in number of producers
- Scenario 3 – Increase input costs
- Scenario 4 – Decrease input costs
- Scenario 5 – Increase in cost via increase in taxes

Have students refer to the graph when responding to the following questions:

- At what price would the DVD company no longer be willing to produce DVDs? [\$10]
- What production change would you suggest if the price changed from \$15 to \$20? [Double production]
- What is the relationship of price and quantity supplied? (Law of Supply) [As price increases, the quantity that producers are willing to produce increases.]
- Would the DVD company be willing to produce 10,000 DVDs per day? Why or why not? [The DVD company would be willing to produce 10,000 DVDs per day if the price were \$40 or more.]

Check for Understanding

- ❖ How is supply affected when input costs, number of producers, and taxes change?

Rubric

3 – This response gives a valid effect for input costs, number of producers, and taxes.

2 – This response gives a valid effect for two of the three factors (input costs, number of producers, and taxes).

1 – This response gives a valid effect for only one of the three factors (input costs, number of producers, and taxes).

Sample Answer Matrix: (**Note to Teacher** – in most cases when a factor of supply increases, then supply decreases. An exception is with the number of producers—as more and more producers enter the market, the quantity supplied will increase. Taxes are considered a cost to the producer and will add to the production costs.

Factor	Increase	Decrease
Input Costs	Supply Decreases	Supply Decreases
Number of Producers	Supply Increases	Supply Decreases
Taxes	Supply Decreases	Supply Increases

Strategy 4 – Application Simulations

Distribute [Addendum 5-4A](#) to students. Have students read each of the six situations described on the handout, and then write a response to the question:

- Assuming that everything else remains the same, how would the following situations affect supplies at the DVD manufacturing company?

Differentiation Strategies: students can jigsaw or work in pairs to complete the task.

Answer Cues –

SITUATION 1:

The workers in your factory have negotiated a new contract that requires the company to pay the cost of health care insurance. [Cost of production increases, so supply will decrease.]

SITUATION 2:

Several companies that manufactured movies on VHS tape are now starting to manufacture DVDs instead. [Increase in the number of sellers will cause supply to increase.]

SITUATION 3:

The price of plastic cases has gone up considerably. [Cost of inputs or production costs increases, so supply will decrease.]

SITUATION 4:

You have purchased a new printer that uses less ink and electricity than your old printer. [Cost of inputs (Capital Goods) or production costs decreases, so supply will increase.]

SITUATION 5:

The federal government has placed an Entertainment Tax on all movies, including DVDs. [Taxes are a government action that acts like a cost of inputs. In this case supply will decrease.]

Check for Understanding

- ❖ In a market economy, how will prices and quantities of goods and services change as supply changes? Support your answer with an example.

Rubric

2-This response gives a valid explanation with an accurate and relevant example.

1-This response gives a valid explanation with an inaccurate, irrelevant, or no example.

Lesson 6 – Changes in Markets and Prices

Essential Question

- In a market economy, how and why do prices and quantities of goods and services change?

Background

In a market economy, prices of **goods and services** along with quantities demanded and produced continually change. Changes in supply and demand occur because of many factors. Understanding the market forces and situations that cause supply and/or demand to change is essential to understanding how prices are determined.

In this lesson, students analyze different situations of market and price changes. The focus of this lesson is to reinforce the determinants of supply and demand and the results when such changes occur.

Instructional Strategies

Strategy 1 – Gathering Information/Building Background Learning Circles

Tell students that they have explored many changes in markets that cause price and quantity to change.

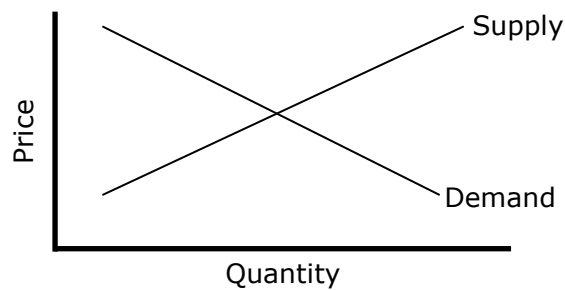
Have pairs of students prepare a graphic representation of the different factors that can influence demand and supply in a market economy. On paper or with a software program, have students include in their representation the following:

- **Demand Factors:** income, taste/fads, number of buyers, price of complements, and price of substitutes
- **Supply Factors:** costs, taxes, and number of sellers

Have students include examples for each of the changes. The most effective representations will include examples of when a factor causes an increase and a decrease.

Ask students to think about what a graph of the market for chocolate bars would look like. You may want to share a graph of the market for chocolate bars as follows:

Chocolate Bar Market



Make one copy of [Addendum 6-1A](#) and separate into individual cards. Assign one situation to one-half of the students. These students will form a circle in the middle of the room or some other place that has enough room for students to move. (You may want to complete this part of the lesson by creating two separate circles if the class is very large.) Have the remaining students pick a partner in the inner circle and form an “outside” circle of students facing their partners in the “inside” circle.

Have the students with the situation cards begin by reading the situation card. Their partner will make a prediction about what will happen when this occurs. Responses should include:

1. Identification of which curve shifts – supply or demand
2. Impact upon price – increase or decrease
3. Impact upon quantity – increase or decrease

The student from the “inside” circle that reads the card now gives the card to the partner in the “outside.” The inside circle moves either clockwise or counter clockwise, so that the students have a new partner. Using the information on their “new” cards, the “outside” circle will read the question, and the “inside” circle will respond to the topic with their partner. The exchanging of cards and circle rotation continues until each student has had an opportunity to respond to each situation.

Check for Understanding

In the summer of 2008, the price for a gallon of gasoline was over \$4 per gallon. By November 2008, the price of gasoline fell to under \$2 per gallon.

- ❖ Why might the price of gasoline have changed? Explain your answer.

Rubric

2 – This response gives a valid change with an accurate and relevant explanation.

1 – This response gives a valid change with an inaccurate, irrelevant, or no explanation.

Sample Cues:

Supply – Supply would have to increase in order for price to decrease. This may have been due to:

- Increase in technology – better methods for drilling, refining, distribution
- Decrease in input costs – lower wages of workers, decrease in price of crude oil
- Increase in the number of sellers – price wars with additional producers
- New oil fields discovered – November 9, 2008, new discovery of Bakken Shale Formation in North Dakota believed to contain 4.3 billion barrels of oil to be extracted

Demand – Demand would have to decrease in order for price to decrease. This may have been due to:

- Change in substitutes – increase sales of gasohol or other substitute fuel
- Change in complements – increase use of hybrid cars that use less fuel

- Change in use (taste) – drivers decrease use by carpooling, planning trips more efficiently, reducing the number of miles driven on trips, or eliminating pleasure trips
- Decrease of income – workers taking pay cuts, workers becoming unemployed, consumers with fixed incomes have less income due to stock market prices falling

Check for Understanding

- ❖ Have students complete [Addendum 6-2](#).

Answer Cues:

1. A
2. B
3. B
4. D
5. A
6. D
7. D

8. **Score Point 2** – This response gives a valid reason with an accurate and relevant explanation.
Score Point 1 – This response gives a valid reason with an inaccurate, irrelevant, or no explanation.
9. **Score Point 2** – This response gives a valid cause with an accurate and relevant explanation.
Score Point 1 – This response gives a valid cause with an inaccurate, irrelevant or no explanation.

Tip for the Teacher:

- Free online games in which students use their knowledge of supply and demand: Lemonade Stand: <http://www.ae4rv.com/games/lemonade.htm>
- A three-part lesson centered on Henry Ford and productivity can serve as a complement to this lesson. <http://www.econedlink.org/lessons/index.php?lesson=EM668&page=teacher>
- A lesson that is available online from the Federal Reserve can be accessed at: http://stlouisfed.org/education_resources/assets/lesson_plans/05ITV_OilPrices.pdf. This lesson is published by the Federal Reserve for grades 9-12, but meets Delaware Economics Standard 1 for 6-8.

Resources and Teaching Tips

- A variety of resources are included (texts, print, media, web links)
- Help in identifying and correcting student misunderstandings and weaknesses

Resources

- EconEdLink – Website sponsored by the National Council on Economic Education. Online lessons and teacher tips. <http://www.econedlink.org>
- “Focus: Middle School Economics,” published by the National Council on Economic Education, 1996
- “Master Curriculum Guides in Economics: Teaching Strategies - 5-6,” published by the National Council on Economic Education.
- “Strategies for Teaching Economics: Junior High School Level (Grades 7-9),” published by the Joint Council on Economic Education, 1991
- “VIRTUALEconomics,” CD-Rom with over 1,200 economics lessons. Each Delaware school district has at least one copy of this resource. Copyright 2005 by the National Council on Economic Education.

Teaching Tips

Teaching tips are embedded throughout the unit.

Differentiation

- Stage 2 and 3 allow students to demonstrate understanding with choices, options, and/or variety in the products and performances without compromising the expectations of the Content Standards.
- Instruction is varied to address differences in readiness, interest, and/or learning profiles.
- Accommodations and differentiation strategies are incorporated in the design of Stage 2 and 3.

Students are encouraged to work with others in pairs and groups. Students will connect and respond to market situations based on their own experiences and interests. Check for Understanding and other activities are often open ended.

Research-based instructional strategies are used throughout the unit.

The Stage 2 task allows students to select the method of presentation according to their individual comfort level and learning styles.

Design Principles for Unit Development

At least one of the design principles below is embedded within unit design.

- **8th Grade Technology Literacy** – the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st Century (SETDA, 2003).
- **International Education** – the ability to appreciate the richness of our own cultural heritage and that of other cultures in to provide cross-cultural communicative competence.
- **Differentiated instruction** – the ability to effectively and efficiently reach all students in a heterogeneous environment.
- **Universal Design for Learning** – the ability to provide multiple means of representation, expression, and engagement to give learners various ways to acquire and demonstrate knowledge.
- **21st Century Learning** – the ability of to use skills, resources, and tools to meet the demands of the global community and tomorrow’s workplace. (1) Inquire, think critically, and gain knowledge, (2) Draw conclusions make informed decisions, apply knowledge to new situations, and create new knowledge, (3) Share knowledge and participate ethically and productively as members of our democratic society, (4) Pursue personal and aesthetic growth. (AASL, 2007)

Examples of 21st century skills include:

- Exercise sound reasoning in understanding and making complex choices
- Frame, analyze, and solve problems
- Demonstrate teamwork and leadership
- Work productively with others
- Monitor one's own understanding and learning needs

Technology Integration

The ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information

The following websites are grade-level appropriate for understanding Supply and Demand:

- Lemonade Stand – <http://www.ae4rv.com/games/lemonade.htm>
- Drawing Supply and Demand Graphs – <http://www.producingohio.org/lesson/draw.html>

- Simple Supply and Demand Explanation – <http://socialstudiesforkids.com/articles/economics/supplyanddemand1.htm>
- Bubble-Up Soda – Online Interactive Lesson
 - Student version: <http://econedlink.org/lessons/index.cfm?lesson=EM550>
 - Teacher version: <http://econedlink.org/lessons/index.cfm?lesson=EM550&page=teacher>

Lesson 6, Strategy 1 – Students may wish to use graphic representation software to complete part 2 of Lesson 6, Strategy 1.

Content Connections

Content Standards integrated within instructional strategies

Social Studies – Economics Standard Two 6-8a: Students will analyze the role of money and banking in the economy, and the ways in which government taxes and spending affect the functioning of market economies.

English Language Arts –Standard 1: Students will use written and oral English appropriate for various purposes and audiences.

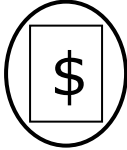
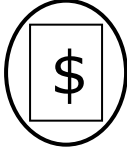
English Language Arts - Standard 3: Students will access, organize, and evaluate information gained by listening, reading, and viewing.

Mathematics - Standard 2 (5–8) – Algebraic Reasoning: Students will develop Algebraic Reasoning and an understanding of Patterns and Functions by solving problems in which there is a need to recognize and extend a variety of patterns; to progress from the concrete to the abstract using physical models, equations, and graphs; to describe, represent, and analyze relationships among variable quantities; and to analyze, represent, model, and describe real-world functional relationships.

Addendum 1-1A

**You are to sell your
 Video Games.
 Do not sell for less
 than**

\$


**You are to buy a Video
 Game.
 Do not spend more
 than** 

\$ _____

Sell Cards (Video Games)		Buy Cards (Money)	
Number of Cards	Amount	Number of Cards	Amount
4	\$ 35	4	\$ 80
6	40	4	75
6	45	4	70
4	50	4	65
4	55	4	60
2	60	4	55
2	65	2	50
2	70	2	45
2	75	2	40
--	--	2	35

Addendum 1-1B

Video Games Market Frequency Chart

Video Game Market			
Price	Round 1	Round 2	Round 3
\$80			
\$75			
\$70			
\$65			
\$60			
\$55			
\$50			
\$45			
\$40			
\$35			

**Addendum 1-2A
Introducing Vocabulary**

Vocabulary Word or Concept	I have never heard this word.	I have heard this word but not sure what it means.	I know the definition of this word.	I know this word and can give an example.
Demand				
Price				
Quantity				
Increase				
Decrease				
Shortage				
Surplus				

Addendum 1-2B

Vocabulary Word or Concept	Definition
Demand	
Supply	
Price	
Quantity	
Increase	
Decrease	
Shortage	
Surplus	

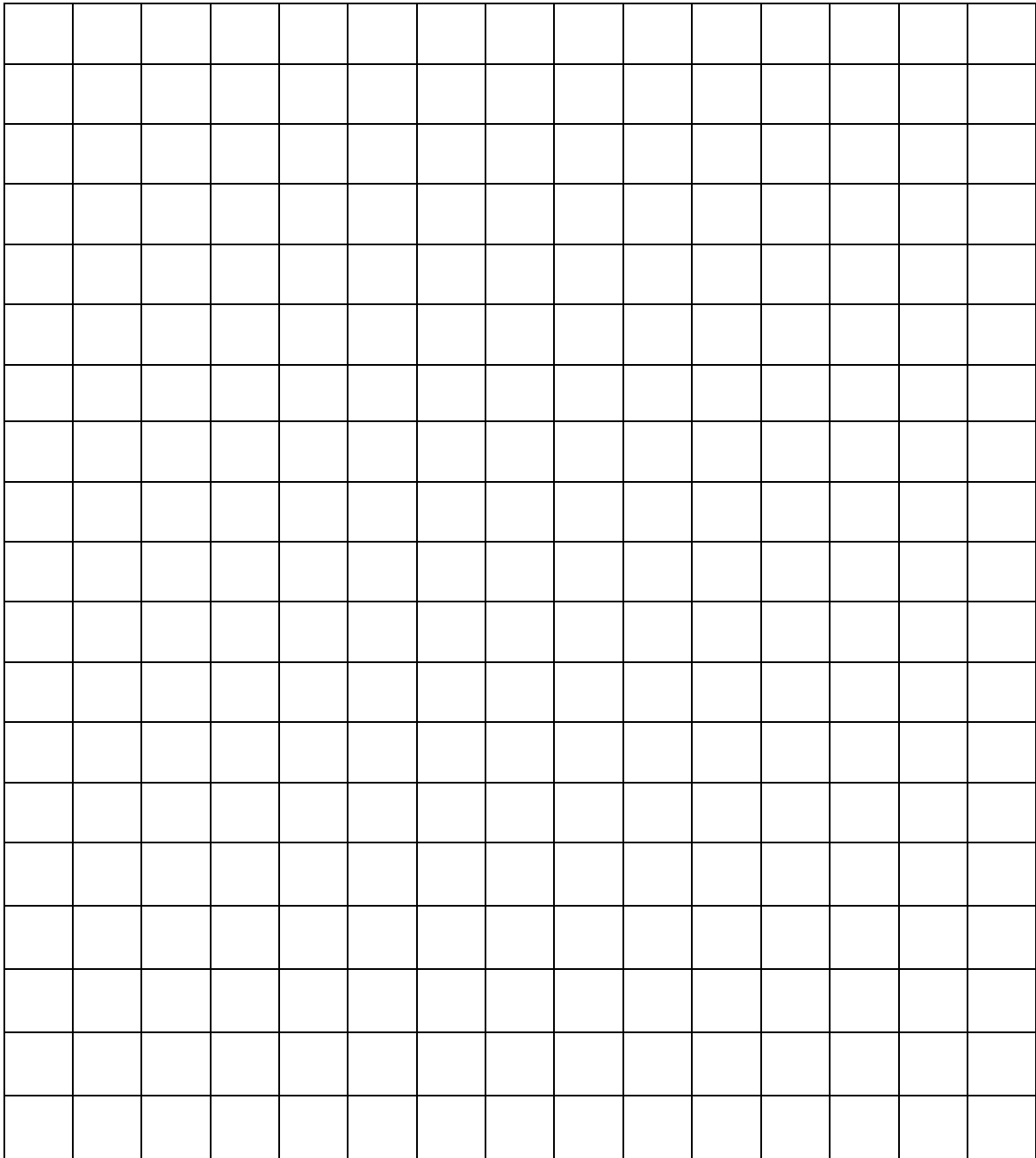
Addendum 1-2C

<p>The amount consumers are willing and able to buy at various prices.</p>
<p>The amount producers are willing and able to provide at various prices.</p>
<p>The sum or amount of money.</p>
<p>The amount of a good or service.</p>
<p>To make or become greater.</p>
<p>To make or cause to become less.</p>
<p>When demand is greater than supply, less than expected.</p>
<p>When supply is greater than demand, excess.</p>

**Addendum 1-2D
Gum Purchasing Simulation**

Round	Price	Number of Packages Demanded
1	\$1.00	
2	\$1.50	
3	\$2.00	
4	\$2.50	
5	\$3.00	

Addendum 1-2E
Graphing



Addendum 2-2A Tamira's T-Shirts

Tamira Ramirez is president and founder Tamira's T-Shirts. The T-shirts Tamira produces are very popular. The T-shirts are hand painted and very colorful.

Because Tamira's T-shirts are in high demand, she has made some production changes in the last year. Tamira has:

- Hired a few more workers
- Moved to a larger warehouse
- Sold stock in the company

Currently:

- The T-Shirts sell for \$20 each
- There are 9 employees – 1 designer, 6 painters, and 2 warehouse workers
- Each worker works 40 hours a week
- With these resources, 10 shirts per hour are produced

Tamira has just received an order for 20,000 shirts that must be shipped in 16 weeks (about 31 shirts a hour). If they can fill this order, they have a commitment from the customer for additional orders of 20,000 every 16 weeks.

Tamira knows that the company cannot handle this order with the current resources and has determined the following options:

- Option A – Keep everything the same and turn down the order.
- Option B – Hire 3 new designers, 20 new painters and 2 more warehouse workers. With these additional workers, 32 T-Shirts a hour can be produced.
- Option C – Rent more machines at \$200 per hour. Layoff the designer and painters, but add 2 computer designers and 2 more warehouse workers. This new plan will be able to produce 50 T-Shirts a hour.

Complete the chart below:

Option	Number of shirts per hour	Total labor per hour	Total Labor per shirt (Divide Total Labor per hour by Number of shirts per hour)	Material cost per shirt	Other costs per shirt	Cost per shirt	Price per shirt
Option A	10	\$100		\$4	\$3		\$20
Option B	32	\$400		\$4	\$3		\$20
Option C	50	\$80		\$4	\$9		\$20

Which option do you think Tamira should follow? Why do you think this is the best option? You may use the chart to help you make a choice.

Addendum 2-3A

Use the chart below to record which option(s) are preferred by each group and give an explanation for the choices.

Group	Option A	Option B	Option C	Explanation
Tamira				
Stockholders				
Current workers				
Community or Government Leaders				
Unemployed People in the Community				
Consumers				

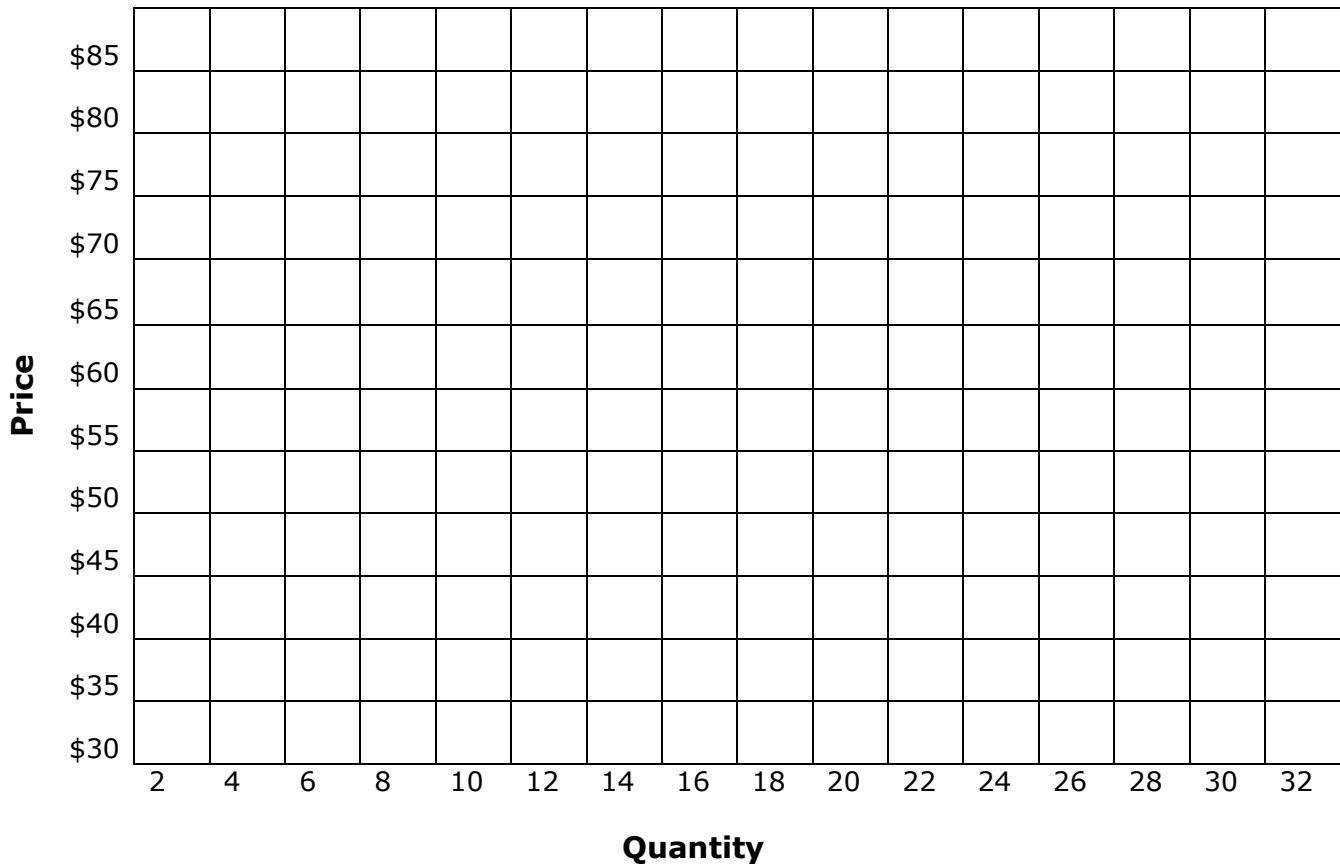
Which option should Tamira follow? Why do you think this is the best option?

Addendum 3-2A

Below are the demand and supply schedules for the Video Game Market. Graph the supply and demand curves below.

Price	Quantity Demanded	Price	Quantity Supplied
\$ 80	4	\$ 80	32
75	8	75	32
70	12	70	30
65	16	65	28
60	20	60	26
55	24	55	22
50	26	50	18
45	28	45	12
40	30	40	6
35	32	35	2

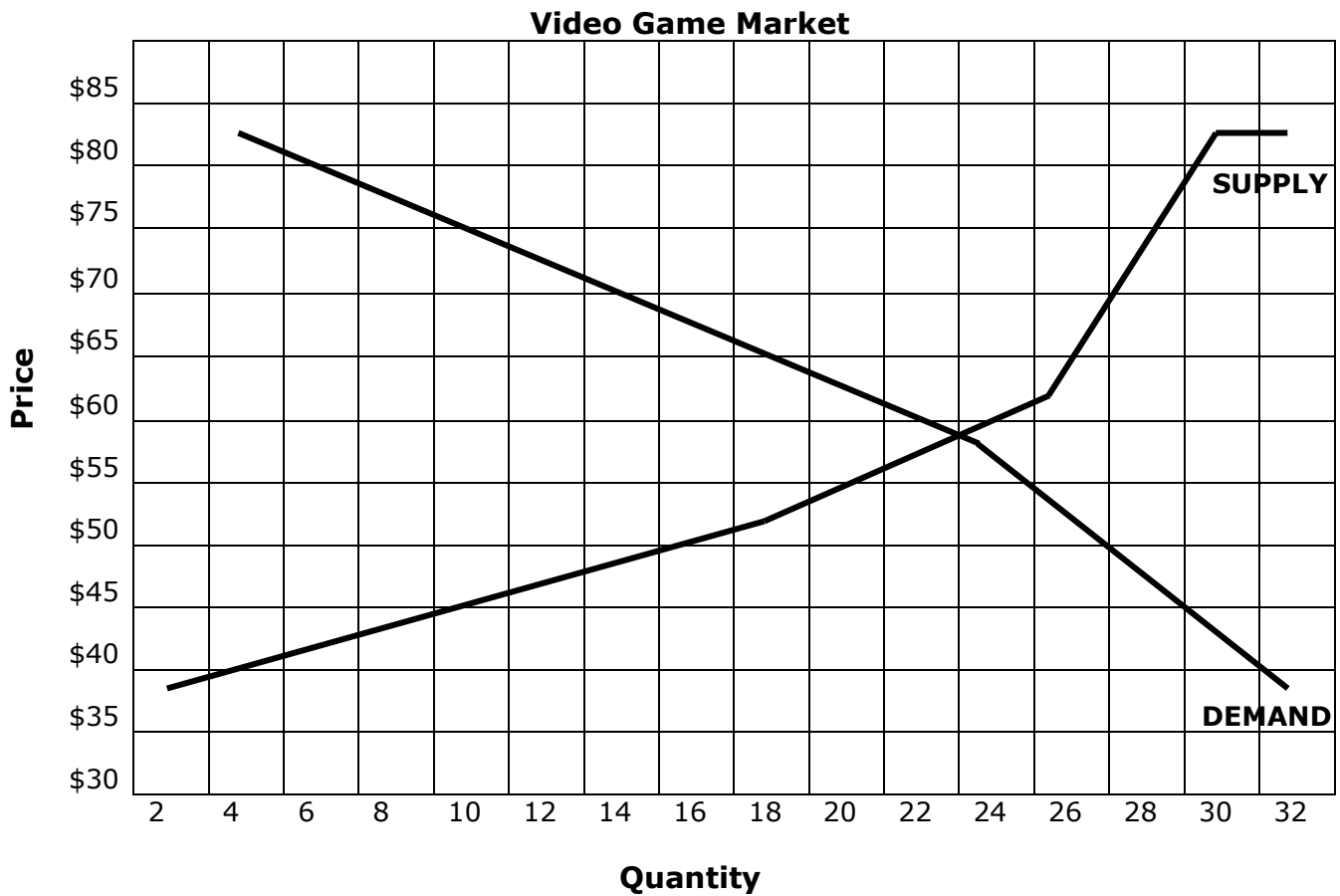
Video Game Market



Addendum 3-2A (ANSWER KEY)

Below is the demand and supply schedules for the Video Game Market. Graph the supply and demand curves below.

Price	Quantity Demanded	Price	Quantity Supplied
\$ 80	4	\$ 80	32
75	8	75	32
70	12	70	30
65	16	65	28
60	20	60	26
55	24	55	22
50	26	50	18
45	28	45	12
40	30	40	6
35	32	35	2



Addendum 3-2B
Video Game Market Questions

1. Were you a buyer or a seller?

2. When was it difficult for you to make a transaction?

3. According to the graph, what is the market equilibrium price and quantity?

4. If you knew the **market equilibrium** price before you participated in the game, what might you do differently? Explain your answer.

Use the following terms and your Video Game Market graph to complete the sentences below. You will not use all of the terms.

increase	remain unchanged	be less
decrease		be greater

5. If everything remains the same, the quantity of Video Games available for sale at a price of \$70 would probably _____ than the quantity available for sale at \$40.

6. The demand for Video Games would _____ at \$70 than at \$40.

7. All things being equal, if fewer Video Games were demanded then the prices charged for Video Games would probably _____.

8. If the amount of Video Games for sale doubled and the amount of Video Games people were willing to buy also doubled, the price would probably _____.

Addendum 3-3A
Market Equilibrium Assessment

Use the information from the table, Market for DVD Players, to answer the question that follows.

Market for DVD Players		
Price per Player	Quantity Demanded	Quantity Supplied
\$599	25	600
\$499	75	525
\$379	150	400
\$279	325	325
\$199	500	75

ACE Electronics is a major producer of DVDs.
The cost to produce one DVD player is at least \$179.

At what price should ACE Electronics sell one DVD? Use what you know about markets to explain your answer.

Addendum 3-3B

Demand and Price Are Falling for Lobster

By [KATIE ZEZIMA](#)

Published: September 1, 2008, New York Times

BOSTON — For many, summer in New England would not be complete without throwing on a bib and cracking open a freshly boiled lobster.



[Lobster fishermen, heading out into Boston Harbor, were already making fewer trips because of fuel costs. Now they face less consumer demand for their catch, which is seen as a luxury item.](#)

[As consumers buy less lobster this summer, prices are going down at places like James Hook and Company in Boston.](#)

[This year, however, fewer people are ordering the region's signature dish, driving down lobster prices and making times harder for lobster fishermen already reeling from the high cost of fuel and bait.](#)

"Lobster is a luxury item, and when things are tight, people don't buy lobster," said Peter Eaton, a lobsterman from Kennebunkport, Me., who is getting about \$3.75 per lobster off the boat, a quarter less than three months ago and about a dollar less than last summer.

While price and demand have hit their lowest point in years, lobster fishermen are hauling in larger catches than ever. Restaurants in New England have been running lobster specials all summer, trying to pass on the lower prices and move lobsters from the tank to the table.

"We can be creative with lobsters, given the fact that demand across the country is off on them a bit," said Roger Berkowitz, the president and chief executive of Legal Sea Foods, a restaurant chain based in Boston. Its restaurants have been running lobster specials this summer, and a lobster is about \$4 cheaper this summer than last.

"It's not necessarily a bad thing," Mr. Berkowitz said. "It's becoming a little more affordable, like one of those more affordable luxuries. If you're going to indulge, you might as well indulge at a discount."

Even though the price is down, Jose Soliva, 37, an architect from Wellesley, Mass., is trying to save money and was buying his first lobsters of the summer on Friday for himself and his wife.

"A few years back we had it more often," Mr. Soliva said. "But since the economy is bad we're now a lot more conservative about when we treat ourselves."

Soft-shell lobsters, which are harvested in summer and typically served in restaurants, are the least expensive this year, while hard-shell lobsters, which are usually no smaller than a pound and a half, are slightly more expensive.

While diners like lower lobster prices, lobster fishermen do not. The fishermen have spent much of this year modifying how they set and haul in their traps. Some are allowing traps to sit in the water a day or two longer, which helps save gas and bait prices. Lobster fishermen are absorbing fuel costs twice — for their own boats and for those of the bait fishermen, who have raised prices.

"You have to let your traps set longer," Mr. Eaton said. "If it's a windy, blowy day you don't do a half-day's work anymore. In the end it pays off because you're not wasting fuel. It's not costing you two days' fuel to haul one day's work."

The high price of fuel has forced some lobster fishermen to stop working, said Bob Bayer, executive director of the Lobster Institute at the [University of Maine](#), and low prices will make things even more difficult.

"This means hard times, and it means some are not going to make it," Professor Bayer said. "The boats have gotten bigger and bigger over the years. They're diesel engines, and with fuel over \$5 a gallon, it's going to be tough."

The worst may be ahead, Professor Bayer said, as lobster consumption and prices typically drop in September.

Bernie Feeney, who traps lobsters out of Boston Harbor, said he knew many lobstermen who had taken second jobs in recent years. Mr. Feeney, who has been a lobsterman since 1978, said he had been doing marine surveying for the last five years to help pay the bills.

"In a year where our fuel costs are almost doubled and bait costs have gone up 50 to 60 percent as a result of fuel," Mr. Feeney said, "it's a squeeze from both ends."

Partly as a result, young people are not going into the lobstering business, he said, adding that the average age of a fisherman in Massachusetts is 59.

"There aren't many young entrants," said Mr. Feeney, a past president of the Massachusetts Lobstermen's Association. "The startup costs of this business are astronomical compared to what they used to be."

At James Hook and Company, a retailer in Boston, lobster was selling at \$1 or \$2 less a pound than usual: a soft-shell lobster was \$6.99 a pound, while a one-pound hard-shell lobster was \$8.99.

1. How have fuel costs affected the lobstering business?

2. How do consumers affect the change in price of lobsters? Explain your answer.

3. According to the article, how does the change in supply of lobsters affect the price of lobsters?

- A) The supply has increased and price has increased.
- B) The supply has increased and price has decreased.
- C) The supply has decreased and price has increased.
- D) The supply has decreased and price has decreased.

4. What advice would you give to the lobster fishermen?

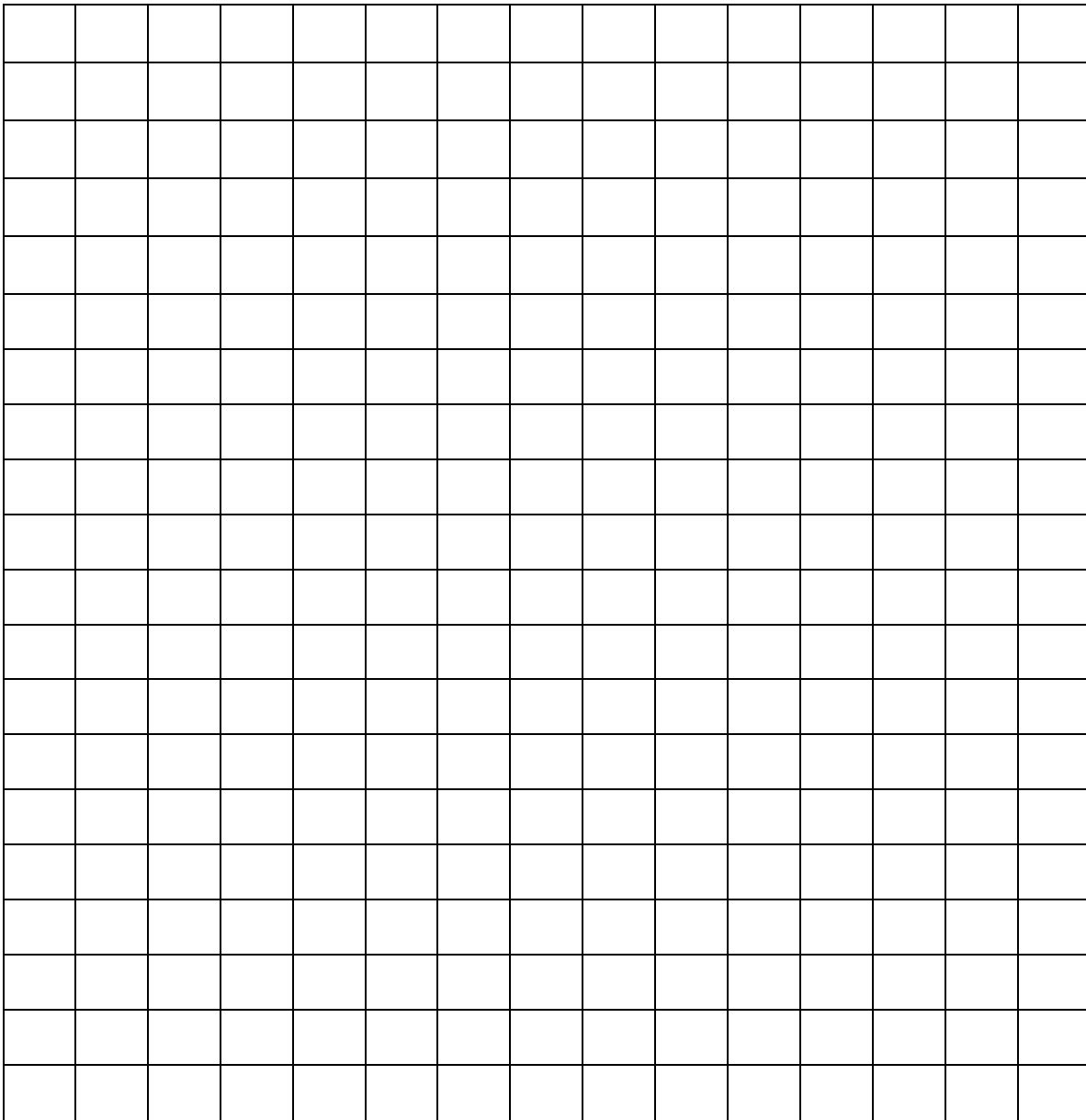
5. If fewer people are entering the lobstering business, what affect will this have on the future market for lobsters? Explain your answer.

Addendum 4-2A
Changes in Demand

Graph the following data:

Demand for Bubble-Up Soda= D_1

Price	Quantity Demanded (in thousands)
\$1.00	5
.75	10
.50	15
.25	20



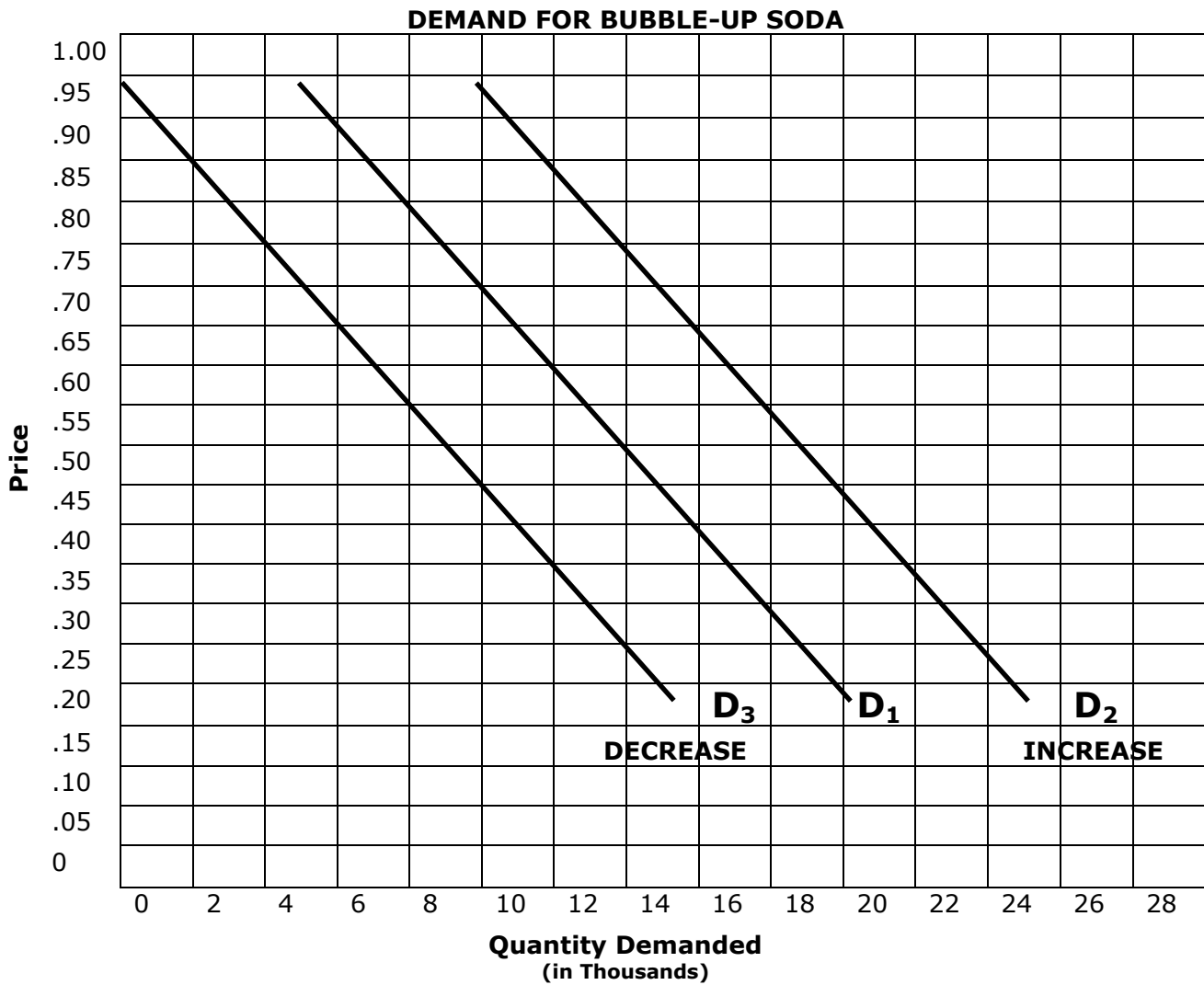
Addendum 4-2B

Demand for Bubble-Up Soda= D_2

Price	Quantity Demanded (in thousands)
\$1.00	10
.75	15
.50	20
.25	25

Demand for Bubble-Up Soda= D_3

Price	Quantity Demanded (in thousands)
\$1.00	0
.75	5
.50	10
.25	15



Addendum 4-2C
Change in Demand Determinants

Demand Determinant	Increase in Demand	Decrease in Demand
Consumer Income – When consumers wages and salaries increase.	Example: A local company increases all employee’s wages by 5%.	
Tastes and Fads – When something becomes popular very suddenly.		
Number of Consumers – When more people are willing and able to buy a product.		
Complements – Goods that are used with another.		
Substitutes – Goods that can be used in place of another.		

Addendum 4-2C (ANSWER KEY)
Change in Demand Determinants

Demand Determinant	Increase in Demand	Decrease in Demand
Consumer Income – When consumers wages and salaries increase.	Example: A local company increases all employee wages by 5%.	Workers are no longer allowed to work overtime and therefore earn less money per year.
Tastes and Fads – When something becomes popular very suddenly.	Holidays can bring about a change in demand for goods associated with that holiday. For example: roses on Valentine’s Day.	A good is determined to cause disease. For example: tomatoes in the summer of 2008 were contaminated with salmonella.
Number of Consumers – When more people are willing and able to buy a product.	The number of people over the age of 70 has increased.	Due to inclement weather, people cannot leave their homes to buy goods. For example: Delaware receives 30 inches of snow.
Complements – Goods that are used with another.	More shoelaces are needed because people want more than one pair of sneakers.	Cassette players are rarely used, so the demand for cassette tapes has decreased.
Substitutes – Goods that can be used in place of another.	Apples - People do not prefer pears more than apples and vice versa. If the price of pears increases, then the demand for apples will increase.	Dockers – Students do not prefer one type of pants to another. If the price of blue jeans decreases, then the demand for Dockers will decrease.

Addendum 5-2A Predicting Scenarios – Bicycle Market

With a partner, read each of the scenarios and predict how you would react if you were a bicycle supplier or producer.

Scenario	Would the cost to produce each bicycle change?	Would the quantity you were willing to produce change?	Would you want to produce more or less than you do now?	What type of determinant of supply is this? (see below)
1. You have been making your bicycle frames out of titanium, a very strong and light-weight material. A new source of titanium has just been discovered.				
2. Several of your employees have moved away. You just heard that you could hire part-time help for less than what you paid the employees that moved.				
3. A new bicycle manufacturing company was just formed in a nearby town.				
4. In order to pay for building new bicycle paths, the government has passed a new law that adds a \$10 tax to all bicycle sales.				
5. An ingredient in the paint you use on your bicycles is being bought in large quantities by car manufacturers.				

Identify the determinant of supply that is the focus of each scenario. Choose from the following (you may use a determinant more than once).

Number of Producers

Cost of Production

Taxes

**Addendum 5-2B
Determinants of Supply**

Complete the chart below by writing newspaper headlines that refer to increases and decreases in supply. For example:
Natural Resources - **Hurricane Damages Forests that Produce Building Lumber.** (Decrease in Supply)

Supply Determinant	Increase in Supply	Decrease in Supply
Natural Resources		
Human Resources		
Capital Resources Or Changes in Technology		
Number of Sellers		
Government Action		

Addendum 5-3A DVD Manufacturer Supply Curve

You are a manufacturer of DVDs for a small, movie production company. The production company sends you the original data and information, and your company reproduces high-quality DVDs that are then sold in stores. The chart lists some of your productive resources.

Natural Resources/ Intermediate Goods	Human Resources	Capital Resources
Blank DVDs	President of Advertising	DVD Recorder
Plastic Cases	DVD Recording Manager	Computer Printer
Paper Inserts	Graphic Artist	Factory and Office

Graph the DVD manufacturer's supply curve from the supply schedule below. Be sure to label all parts of the graph.

Price	Quantity Supplied
\$10	0
\$15	2000
\$20	4000
\$25	6000

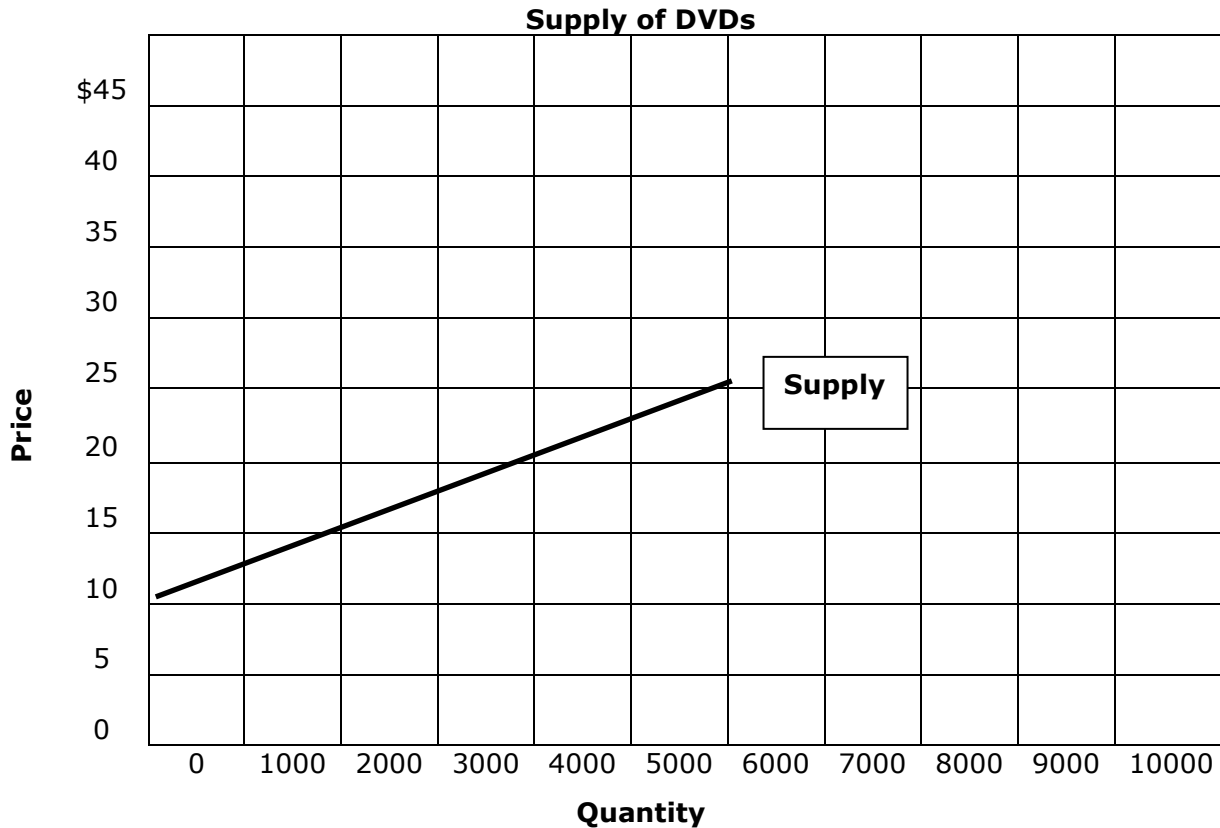
Addendum 5-3A ANSWER KEY DVD Manufacturer Supply Curve

You are a manufacturer of DVDs for a small, movie production company. The production company sends you the original data and information, and your company reproduces high-quality DVDs that are then sold in stores. The chart lists some of your productive resources.

Natural Resources/ Intermediate Goods	Human Resources	Capital Resources
Blank DVDs	President of Advertising	DVD Recorder
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Paper Inserts	Graphic Artist	Factory and Office

Graph the DVD manufacturer's supply curve from the supply schedule below. Be sure to label all parts of the graph.

Price	Quantity Supplied
\$10	0
\$15	2000
\$20	4000
\$25	6000



Addendum 5-4A

How would the following situations affect the DVD manufacturing company?

SITUATION 1:

The workers in your factory have negotiated a new contract that requires the company to pay the cost of health care insurance.

SITUATION 2:

Several companies that manufactured movies on VHS tape now are starting to manufacture DVDs instead.

SITUATION 3:

The price of plastic cases has gone up considerably.

SITUATION 4:

You have purchased a new computer printer that uses less ink and electricity than your old printer.

Situation 5:

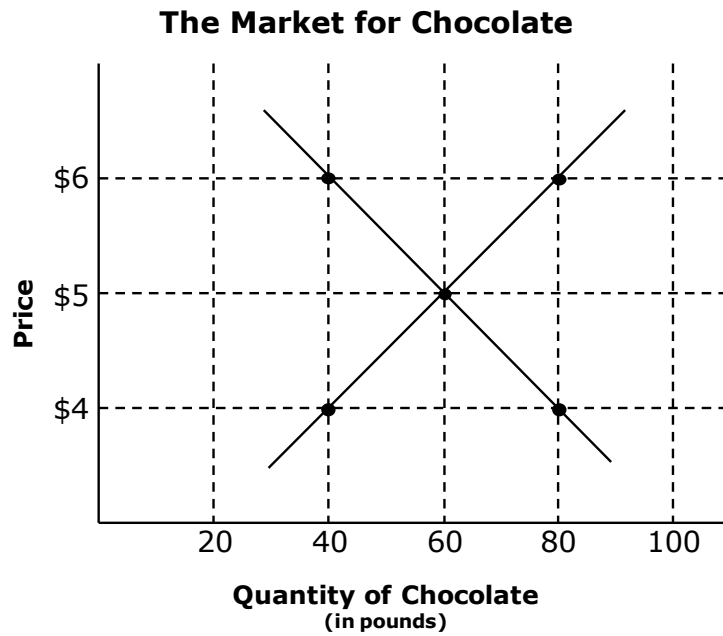
The federal government has placed an Entertainment Tax on all movies, including DVDs.

Addendum 6-1A
Chocolate Bar Market Situations

<p>What happens when:</p> <p>Consumer income increases.</p> <p>[Demand for chocolate increases, price of chocolate increases, quantity of chocolate increases.]</p>	<p>What happens when:</p> <p>Smores are a dessert treat made from marshmallows, chocolate bars, and graham crackers. The price of graham crackers has decreased.</p> <p>[Demand for chocolate increases, price of chocolate increases, quantity of chocolate increases]</p>
<p>What happens when:</p> <p>Doctors believe chocolate can cure colds.</p> <p>[Demand for chocolate increases, price of chocolate increases, quantity of chocolate increases.]</p>	<p>What happens when:</p> <p>Doctors find a new treatment for chocolate allergies.</p> <p>[Demand for chocolate increases, price of chocolate increases, quantity of chocolate increases.]</p>
<p>What happens when:</p> <p>Consumers now buy jellybeans instead of chocolate bars.</p> <p>[Demand for chocolate decreases, price of chocolate decreases, quantity of chocolate decreases.]</p>	<p>What happens when:</p> <p>A new machine has been invented to make producing chocolate less expensive.</p> <p>[Supply of chocolate increases, price of chocolate decreases, quantity of chocolate increases.]</p>
<p>What happens when:</p> <p>The government has just placed a tax on all chocolate products.</p> <p>[Supply of chocolate decreases, price of chocolate increases, quantity of chocolate decreases.]</p>	<p>What happens when:</p> <p>The company begins a new policy of providing free daycare to all employees.</p> <p>[Supply of chocolate decreases, price of chocolate increases, quantity of chocolate decreases.]</p>
<p>What happens when:</p> <p>The price of energy increases.</p> <p>[Supply of chocolate decreases, price of chocolate increases, quantity of chocolate decreases.]</p>	<p>What happens when:</p> <p>New companies are started that make chocolate bars.</p> <p>[Supply of chocolate increases, price of chocolate decreases, quantity of chocolate increases.]</p>

Addendum 6-2 Evaluations

Use this graphic for Questions 1 & 2:



- Suppose that the government set the price of chocolate at \$6 per pound. Which of the following statements best describes an effect of this price control?
 - There would be a surplus of 40 pounds of chocolate.
 - Less chocolate would be demanded at \$4 than at \$6.
 - Producers of chocolate would want the price set at \$4.
 - There would be a shortage of 20 pounds of chocolate.

- If the government removes the price control of \$6, what will be the price and quantity sold of chocolate?

	<u>Price</u>	<u>Quantity Sold</u> <u>(in pounds)</u>
A)	\$6	40
B)	\$5	60
C)	\$5	100
D)	\$4	80

3. Recently, the hourly wage that parents are willing to pay babysitters increased dramatically. Higher pay will most likely cause which of the following changes in how babysitters divide their out-of-school time between babysitting and other activities?

<u>Time Spent Babysitting</u>	<u>Time Spent on Other Activities</u>
A) No change	Decrease
B) Increase	Decrease
C) Decrease	No change
D) Increase	Increase

4. When people's incomes increase, the demand for roses and the price of roses are most likely to change in which of the following ways?

<u>Demand for Roses</u>	<u>Price</u>
A) Decrease	Decrease
B) Decrease	Increase
C) Increase	Decrease
D) Increase	Increase

5. What is most likely to happen when consumers increase their purchases of goods and services?

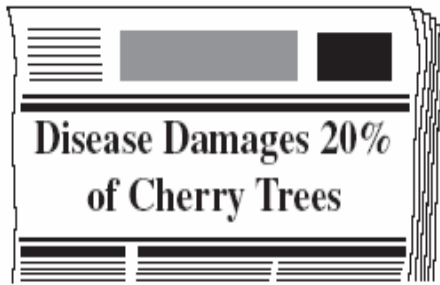
- A) Businesses will increase production, and workers will receive more income.
- B) Businesses will increase production, and workers will receive less income.
- C) Businesses will decrease production, and workers will receive more income.
- D) Businesses will decrease production, and workers will receive less income.

6. Which of the following defines the equilibrium price for a product in a competitive market?

- A) The price that most consumers are willing to pay for the product.
- B) The price at which business makes the maximum revenue.
- C) The price that is equal to the total cost of producing and marketing the product.
- D) The price at which the quantity supplied is the same as the quantity demanded.

7. Which event would *most likely* cause a decrease in the market price for cherries?

A



C



B



D



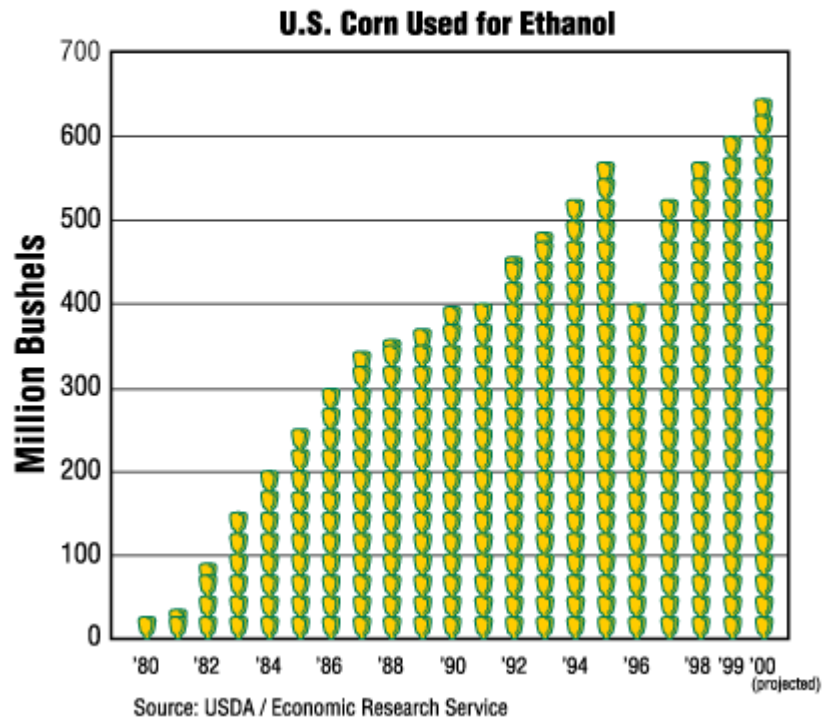
8. This chart shows the price in U.S. dollars (April 2003) of the same type of hamburger made by a U.S. fast food chain compared to the price in its international locations.

Country/Market	Price in U.S. Dollars
United States	2.71
Australia	1.86
Brazil	1.48
Canada	2.21
China	1.20
Egypt	1.35
European Union	2.97
Iceland	5.79
South Africa	1.84
Switzerland	4.59
Venezuela	2.32

Why would the price of this hamburger vary around the world when each is made with the same ingredients? Explain your answer.

9. Ethanol is a renewable fuel made from corn and other agricultural products. In 1982, less than 100 million bushels of corn was produced for the production (use) of ethanol. By the year 2000, over 600 million bushels of corn was being used for the production of ethanol.

*Every bushel of corn can produce
2.5 gallons of ethanol*



<http://www.nwicc.cc.ia.us/pages/continuing/business/ethanol/Module3.htm>

What is a possible cause for the trend that appears in the graph? Explain your answer.

Addendum T-1 for Task News Article

Texas Cattlemen v. Howard Lyman and Oprah

In April of 1996, Mr. Lyman (a former cattle rancher and now food-safety expert) was invited to appear on **Oprah** to discuss Mad Cow disease, food production, and the rendering process. He was part of a discussion of experts, including an expert from the beef industry, about food safety in the U.S. This included a discussion of potential health risks from e-coli and mad cow disease (which only weeks before was making headlines in Britain and throughout the world). When Mr. Lyman explained that cows are being fed to cows, Ms. Winfrey seemed to be repulsed by this thought, and exclaimed that it had just stopped her cold from eating another hamburger.



The show aired on a Monday, and beef futures -- which had been in a steep decline due to drought, over-supply and a number of complex factors -- fell further on Tuesday. (Pundits referred to this as the "Oprah crash.") The cattle industry was apparently outraged, and pulled hundreds of thousands of dollars worth of TV advertising in retaliation. Pressured by television executives to mollify the cattle industry, Oprah offered to do an hour-long segment in which experts from the cattle business could debate Mr. Lyman on her show. However, the cattlemen refused to appear on the show if Lyman were going to be present. They did not desire such a debate.



So, Oprah subsequently permitted a cattle business "expert" to appear and speak for ten minutes on her show, presenting the meat industry "side" in which the meat industry could say whatever they wished, secure in the knowledge that no opposing or questioning viewpoint would be heard.

A short time later, some Texas cattlemen, led by billionaire Paul Engler, owner of Cactus Feeders, Inc., filed suit against Lyman, Oprah, Harpo Productions (which produces **Oprah**) and King World Syndicator (King World was released from the suit by summary judgment). The lawsuit alleged Lyman and **Oprah** had violated a Texas law which forbids someone from "knowingly making false statements" about agricultural business. The cattlemen have alleged that the all-powerful and God-like Oprah is responsible for the decline in beef futures.

A trial is underway in Amarillo, Texas -- smack in the middle of cattle ranching country, from which the jury has been selected -- despite numerous requests from the defendants to move the trial to another part of Texas.

From: Website: Howard Lyman – A Voice for a Viable Future
<http://vegsource.com/lyman/lawsuit.htm> Accessed July 24, 2008

Addendum T-2 for Task News Article Excerpts

Original reference can be found at:
 "Mad Cattlemen Sue Oprah", EconEdLink Online Lesson,
<http://www.econedlink.org/lessons/index.cfm?lesson=EM15>

<p style="text-align: center;">OPRAH VILIFIED IN COURT, ADORED OUTSIDE</p> <p>"Witness Bill O'Brien, head of plaintiff Texas Beef Producers, said the Winfrey Show, aired on April 15, 1996, caused prices to fall by 7 cents a pound in one day...O'Brien said meat packers, after hearing about the show, started pulling out of the market in droves."</p> <p>Source: Yahoo! News</p>	<p>"Mr. O'Brien detailed how the West Texas cattle market crashed to 10-year lows in the wake of the show. He cited industry figures showing a drop from 62 cents per pound on April 16 to 55 cents eight days later...The defense blames the beef industry's price drop on drought and other factors."</p> <p>Source: Dallas News</p>
<p>O'Brien testified that he heard about an immediate slide in cattle prices after the program aired from contacts in Chicago -- which is home to both Winfrey's show and the mercantile exchange that sets a benchmark for nationwide cattle prices. He responded by notifying his feed yards to start selling off cattle. Within an hour, O'Brien had sold more than 2,000 head. Prices, meanwhile, continued dropping for weeks.</p> <p>"I didn't try to sell any cattle (later) that week, but from people I talked to, they said the market was dead," said O'Brien, one of several Texas cattle producers suing Winfrey.</p> <p>Plaintiffs claim that Winfrey's show triggered the market downfall, costing them \$10.3 million. They're seeking unspecified punitive damages from Winfrey, her production company Harpo Productions Inc. and show guest Howard Lyman, a food safety activist."</p> <p>Source: CNN</p>	<p style="text-align: center;">AVERAGE RETAIL BEEF PRICE DECLINES AGAIN</p> <p>DENVER, May 15, 1996 -- Average retail beef prices declined again during the past month, the National Cattlemen's Beef Association points out.</p> <p>Reporting on its monthly 19-city survey of supermarkets, NCBA noted that the average price on May 9 was \$2.96 per pound, compared to \$3.01 on April 11 and \$3.15 a year ago.</p> <p>Beef production has been exceptionally large, as have total meat supplies. All of this has kept pressure on beef and cattle prices and, in turn, on average retail prices.</p> <p>In addition, drought and a devastating cost-price squeeze have caused many owners of cow herds to send more cows to market, compounding beef supply and price problems.</p> <p>Source: National Cattlemen's Beef Association, NCBA News</p>