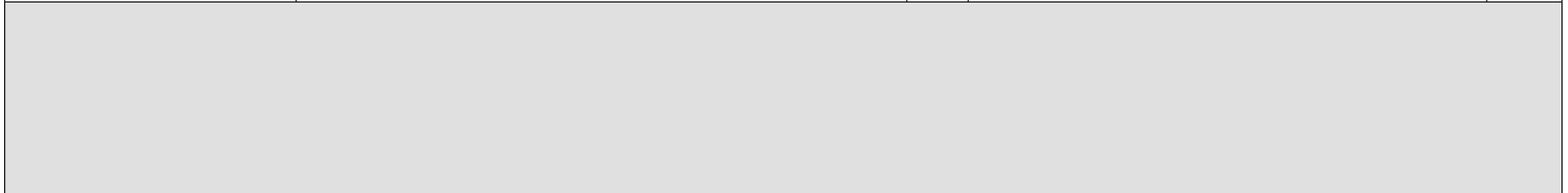


# P R O J E C T O V E R V I E W

<b>Name of Project:</b>	Cool Coal	<b>Duration:</b>	3- 4 weeks
<b>Subject/Course:</b>	Science	<b>Teacher(s): Galvan, Hawkins, DiPonio, Duffin, Math Teacher</b>	<b>Grade Level:</b> 7 <sup>th</sup> grade
<b>Other Subject Areas to Be Included:</b>	Language Arts, Social Studies, Individualized Instruction , Math		
<b>Project Idea</b> Summary of the issue, challenge, investigation, scenario, or problem:	<p>Source Idea: teachcoal.org – this website was the basis for the idea in which it was adapted to fit our school’s needs.</p> <p>Students participate in simulated mining activity in which they consider budgets, land types, tools, history of mining, health impact, environmental impact</p>		
<b>Driving Question</b>	How does coal, as a source of energy, impact the Earth, your community and your life?		
<b>Content Standards to be taught and assessed:</b>	<p><b>L.EC.06.41,</b> <b>L.EC.06.42,</b> <b>E.ES.07.41,</b> <b>E.ES.07.42,</b></p> <p><b>R.WS.07.01</b>            <b>R.NT.07.04</b> <b>R.WS.07.04</b>            <b>R.IT.07.02</b> <b>R.WS.07.05</b>            <b>R.CM.07.01</b> <b>R.WS.07.07</b>            <b>R.CM.07.03</b> <b>R.NT.07.01</b>            <b>R.CM.07.04</b> <b>R.NT.07.03</b>            <b>R.MT.07.01</b> <b>R.CS.07.01</b></p> <p>7-c4 3.1 7E1.1.1 7E1.1.2 7 E2.3.1 7E3.1.1 7P4.2.2</p>		

<b>21st Century Skills</b> to be taught and assessed:	Collaboration – Working together to make decisions. Listening to each other while expressing personal view points		Other:	
	Communication (Oral Presentation) – Expressing knowledge gained through presentation. Discussing ideas effectively with peers as well as to the group			
	Critical Thinking/Problem Solving – Students are able to look at problems/scenarios and think about how to solve them efficiently while considering different views and ideas.			



<b>Major Products &amp; Performances</b>	Group:	Literature: Create picture book with short story about coal mining towns and child labor, reading story to 1st graders  Math: Budget analysis and cost benefit graphing Science: Proposal on land reclamation as if they are presenting to the EPA to get approval (will be a written paper) -cookie mining lab, students compete to get the most coal - Making coal in 2L bottles to see how it forms'		
			X	Class
				School
		Community		
	Individual:	History: Power point on the mining towns of the 40's and 50's In the US and Russia (compare and contrast) Effects on the town Concept Map – Life ad problems in towns including health implications		
			X	Web

# P R O J E C T O V E R V I E W

**Entry Event** to launch inquiry, engage students:

Display the driving question in each of the rooms—displayed after introduction  
 Video clip of mining (life) pictures of mines in US and Russia from internet  
 Person from industry (Skype) –Science  
 \*\*Power Plant tour is still up in the air – this may be supplemented as an entry event for the entire project.

**Assessments**

**Formative Assessments**  
(During Project)

Quizzes/Tests- Short science quiz (2) to assess learning about coal as a source of energy	X	Practice Presentations	X
Journal/Learning Log: Literature- using first person perspective about children in the mines Science – to discuss successes and failures in mining as well as coal as a source of energy	X	Notes- Science direct instruction – teacher notes to add to explanation and students take notes History – notes to add to discussion about States that coal is found in and the towns that developed	X
Preliminary Plans/Outlines/Prototypes		Checklists – Student checklist to assess the group’s progress..(ELA)	X
Rough Drafts – ELA Groups will make use of rough drafts while completing the writing process.	X	Concept Maps – science vocabulary terms of energy-made in class with students (Homework: add to their concept map) History – Life in town and problems including health implications of coal mining physically Science- environmental impacts and energy resources	X
Online Tests/Exams			
<b>Summative Assessments</b> (End of Project)		Written Product(s), with rubric: Science - Proposal about land reclamation as if they are presenting their idea LA - Students will create a 1st grade children's story.	X
	X	Other Product(s) or Performance(s), with Rubric: History – Power point on life and problems in mining town Coal Mining Lab Activity – Science	X

		Oral Presentation, with rubric – Math presentations on budget and final outcome	X	Peer Evaluation	
		Multiple Choice/Short Answer Test – Literature multiple choice test centered around short story	X	Self-Evaluation	
		Essay Test		Other: LA - Students will create and publish a 1st grade children's story to share and leave with a class.	X
<b>Resources Needed</b>	<b>On-site people, facilities:</b>	4 Middle School teachers LD Teacher Administrators Classrooms (4)			
	<b>Equipment:</b>	Smart Boards Computers with Word Processing and internet Video player iPod (pictures and video)			

**Materials:**

Books  
Computers  
Movies  
Pens and Paper  
Cookies for mining activity  
Tools (Paper clips, toothpicks, 2 types)  
Grid paper  
Pictures  
2L bottles  
Leaves  
Sand  
Dirt  
Picture books  
Colored pencils & crayons  
Computer clip art  
Book binding machine & combs

**List of websites for Teacher:**

[www.coaleducation.org](http://www.coaleducation.org)- electronic field trip to coal mine\*

[www.Ket.org](http://www.Ket.org) -Kentucky coal education – great video on inside coal mine(KET video)\*

[www.msha.gov](http://www.msha.gov)- HSHA- Mine Safety and Health Administration under US Department of Labor-has children site too\*

[www.teachcoal.org](http://www.teachcoal.org)-

American Coal Foundation-Gives teacher lessons plans/info for notes/assignments/map/list of organizations to learn more on coal production includes government, organizations and universities

[www.uky.edu/KGS/education/coal.htm](http://www.uky.edu/KGS/education/coal.htm)- info and video\*

Songs on coal on YouTube\*

[www.englishrussia.org](http://www.englishrussia.org)- pictures for social studies inside a Russian coal mine

[Russian.coal.com/coalminingrussia/briefrussia.html](http://Russian.coal.com/coalminingrussia/briefrussia.html) –

Info on Russia coal mining

[www.miningUSA.com](http://www.miningUSA.com)-

[www.wvgenweb.org](http://www.wvgenweb.org) - info and on disasters\*

[www.michigan.gov/documents/deq/GIMDL-COAL-BASIN\\_307760\\_7.pdf](http://www.michigan.gov/documents/deq/GIMDL-COAL-BASIN_307760_7.pdf)- on Michigan mining -Department of Environmental Quality\*

[www.mg.mtu.edu](http://www.mg.mtu.edu) \*

Videos on YouTube- “Take a ride into a mine”(CBS news) and others\*

[www.msubeyondcoal.wordpress.com](http://www.msubeyondcoal.wordpress.com) - Michigan State Univ. students group

Pictures on yahoo images\*

\* For student research also

	<b>Community resources:</b>	Area to walk to collect leaves Library Power Plant (tour if possible) Person from industry			
<b>Reflection Methods</b>	<b>(Individual, Group, and/or Whole Class)</b>	Journal/Learning Log	X	Focus Group	
		Whole-Class Discussion	X	Fishbowl Discussion	
		Survey		Other:	

# PROJECT CALENDAR

**Project:** Cool Coal

**Start Date:** End of September into October (3.5 – 4 weeks)

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
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## PROJECT WEEK ONE

<p>LA: Put kids in 8 groups of 3.</p> <p>Math: Begin budget lesson</p> <p>Science: What is energy and what are the energy sources (Bean activity-determine how important and how heavily we rely on coal) This will be focus</p> <p>History: Pass out pocket folders Driving question posted Discuss where coal mining in world is done-emphasis US and Russia/Soviet Union Opening event – show internet pictures and videos on internet of coal mining Write down thoughts and ideas-questions on topic</p>	<p>LA Homework: Look up information about children in coalmines on internet. Bring in one piece of information per student. Math; Budget Analysis</p> <p>Science: Understanding what coal is Renewable vs. Nonrenewable resources *Concept Map at end of class, homework to finish, present to class next day.</p> <p>History: Watch part of <i>October Sky</i> On mining town. Students continue to write down issues/ideas and questions Pass out internet cites on coal for class and home use</p>	<p>Discuss the homework with their groups. Show a short YouTube video. <a href="http://youtu.be/hyK5MErw3r4">http://youtu.be/hyK5MErw3r4</a></p> <p>Science: Where does coal come from inside the earth, and how does it form. Focus question for group discussion – what would they need to make coal? (hypothesis) Science: short quiz on renewable vs. nonrenewable</p> <p>History: Continue investigating with books and other research items. Goal for Thursday – list 3 topics on Effect of coal mining on communities and individuals that interest students-place in order of importance. To be used to form groups Discuss different countries</p>	<p>Discuss YouTube video and lyrics to the accompanying song with their groups. Math: Begin Bar graphs and circle graphs</p> <p>Science: Making coal (2 days). Collection of leaves, sand – Journal entry about how coal forms and models. (good model, limitations, why?)</p> <p>History: Notes on history of coal mining given by teacher Collect student lists and formulate groups for tomorrow</p>	<p>TSW do a drawing of a verse of the song when given the lyrics. Read <i>When I Was Young in the Mountains</i> by Cynthia Rylant</p> <p>Science: Making coal/ Journaling with student discussion --also, students make plan for Monday about what they are going to do to harvest their coal</p> <p>History: Place students in groups of four. Go over rubric for concept map and power point presentation.  Continue with notes and research. Teams decide what info to be placed on power point.</p>
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## PROJECT WEEK TWO

<p>ELA: Give each group a nonfiction account of life as a child in a coal</p>	<p>Based on the information given yesterday, the groups</p>	<p>Journal entry 1: Based on what was learned so far, each student will write a journal</p>	<p>Modified Critical Friends</p>	<p>Peer edit with another group. Revise at home with a parent.</p>
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# PROJECT TEACHING AND LEARNING GUIDE

**Project: Energy Resource; Coal**

Major Product(s) and Presentation students need to complete	Knowledge and Skills Needed by Students to successfully complete major products and presentations	Scaffolding / Materials / Lessons to be Provided by the project teacher, other teachers, experts, mentors, community members
Language Arts: Write a story about children and coal mining, and share it with 1st graders.	Write journals	→ Topic, notebook, and YouTube video, pencils/pens
	Comprehension	→ The book <u>When I Was Young In The Mountains</u> By Cynthia Rylant. The book <u>Growing Up in Coal Country</u> By Susan Campbell Bartoletti.
	Summarizing Story	→ Teacher made lesson on Smart Board
	Identify literary elements of story	→ Lesson on Smart Board
	Use personal experiences to understand the theme of Story	→ Journal entries and discussions



**MATH**

Create a budget for their mining company based on the mining lab in science class

students will be given a pre-set budget for the purchase of land, tools, and to provide for land reclamation in science class. A lesson on basic profit / loss accounting will be necessary

→

Profits are earned when the mined materials are sold and funds may need to be paid out for additional land reclamation. Students may end in the red if not enough funds for reclamation were allocated.

Using Excel, students will create bar graphs to illustrate the amount of materials mined from their land and circle graphs to illustrate allocation of funds for mining.

before going to the computer lab, introduce bar graph and circle graph construction in class

→

coordinate activities/lessons with the computer teacher who can introduce bar graph and circle graph construction in Excel

Using data from all the mining teams in class, students will create a box and whisker plot for total profit or loss representing the

Box and whisker plots will be introduced in class. Data will come from science class experiments

→

Students will illustrate and analyze profit or loss for the entire class

entire class		
Presentations in a format of the student's choice explaining their company, and illustrating their profit or loss through their graphs plus explaining how their company did as compared to the rest of the class	project creation through Powerpoint, Excel, podcasts, Movie maker, etc	→ Creative presentation styles will need some introduction in computer class
<b>Science</b> Concept map of energy resources, presented to class	Students will need to understand renewable vs. nonrenewable resources. Topics introduced in class, students make list of energy resources. Determine through discussion what characterizes renewable vs. nonrenewable	→ Bean activity to determine how much we use coal, teacher to provide scaffolding for what resources are, pictures of each resource and places where available. Teacher instruction to accompany
Science- Students make their own model coal in class, hands-on learning. Take home.	Materials necessary for coal formation, conditions for coal formation Time needed for coal formation Limitations of model need to be discussed to not lead to misconceptions	→ All lab materials provided by teacher, teacher scaffolding for necessary materials and how to make model. Lesson to accompany

Presentation of mining activity and land reclamation

Information from cookie mining activity, the land they chose, tools, and how they mined their cookie.  
Also, understand land reclamation and difficulties.  
(No cost/profit analysis)

→

Mining activity done in class with teacher facilitating. Teacher led discussion about activity as a whole to ensure students are on track. Teacher instruction to accompany.

EPA written proposal of land reclamation with landscape drawing

Land reclamation and mining destruction of habitats  
Types of plants they want to use to reclaim land  
Drawing of area/include plants etc.  
Cost of reclamation  
Project proposal

→

Computer to type proposal  
Paper for land drawing

History –  
Concept map

Ability to collect information and data on coal mining towns and communities 1912-today  
  
Analyze and differentiate between positive and negative aspects of coal mining on individuals and communities  
  
Compare and contrast mining in US and Russia  
  
Display information found and conclusions made on  
Visual and written document- concept map

→

Pictures, internet clips and movie October Sky provided by teacher for research  
  
Research from questions students formed and using books, internet sites, textbooks and other sources  
  
Drawing conclusions based on notes taken from research

History- power point

Use research to form conclusions about issues involving Coal  
  
Display information in different formats- tables, graphs and pictures  
  
Design effective display  
  
Make conclusions as to information to place in power

→

Using research and information provided by teachers, internet, and first and secondary sources  
  
Discuss elements needed in creating power point  
  
Go over rubric for display

point display

Make sure display is easily read and information and conclusions readily viewed

History – oral presentation of power point

Speaking skills

→ Go over elements of a good oral presentation

Ability to answer questions and verbalize information and conclusions

Discuss rubric for oral presentation



Students can look these up  
provided by American Coal  
Foundation

**Organizations • Government • Universities**

**ORGANIZATIONS:**

American Coal Ash Association

American Coal Council

American Energy Security

American Geological Institute

Americans for Balanced Energy Choices

Bluefield Coal Symposium

Cambria Publishing

Center for the Study of Carbon Dioxide and  
Global Change

Colorado Mining Association

Eastern Coal Council

Electric Math: The Numbers and Math

Behind Our Everyday Appliances

Gasification Technologies Council

Greater Bluefield Chamber of Commerce

Harrison Coal & Reclamation Historical Park

Historical Construction Equipment  
Association

**Illinois Department of Commerce and  
Economic Opportunity Web Pages:**

Coal City Library

Coal Education

Coal History

The Coal Institute

Coal Kids Site

Coal Programs

Coal Publications

Illinois Dept. of Natural Resources: Education

Illinois Dept. Of Natural Resources: Photos

Illinois State Geological Survey

Illinois Clean Coal Institute

The Legacy of an industrial society

Office of Coal Development

Online Maps



## RUBRIC FOR CONCEPT MAP-History

	<b>Exemplary 4</b>	<b>Exceeds Standard 3</b>	<b>Adequately Meets Standard 2</b>	<b>Below Standard 1</b>	<b>Student Score</b>
<b>Concepts</b>	<ul style="list-style-type: none"> <li>• Contains all the positive effects on individuals and towns</li> <li>• Contains all the negative effects on individuals and communities</li> <li>• Includes main people, events and organizations that arose</li> </ul>	<ul style="list-style-type: none"> <li>• Contains most of the positive effects on individuals and towns</li> <li>• Contains most of the negative effects on individuals and towns</li> <li>• Includes most of the main people, events and organizations that arose</li> </ul>	<ul style="list-style-type: none"> <li>• Somewhat contains positive effects on individuals and towns</li> <li>• Somewhat contains negative effects on individuals and towns</li> <li>• Includes some of the people, events and organizations that arose</li> </ul>	<ul style="list-style-type: none"> <li>• Contains limited positive effects on individuals and towns</li> <li>• Contains a limited number of negative effects on individuals and towns</li> <li>• Includes limited number of people, events and organizations that arose</li> </ul>	<hr style="width: 50%; margin: auto;"/>
<b>Organization</b>	<ul style="list-style-type: none"> <li>• Linking words demonstrate superior conceptual understanding</li> <li>• Links are precisely labeled</li> <li>• Well organized</li> <li>• Logical format</li> <li>• Shows understanding of relationships among concepts</li> </ul>	<ul style="list-style-type: none"> <li>• Linking words easy to follow but at times ideas unclear</li> <li>• Links are not precisely labeled</li> <li>• Thoughtfully organized</li> <li>• Easy to follow most of the time</li> <li>• Shows adequate understanding of relationships among concepts</li> </ul>	<ul style="list-style-type: none"> <li>• Linking words are clear but present a flawed rationale</li> <li>• Links are not labeled</li> <li>• Somewhat organized</li> <li>• Somewhat difficult to follow</li> <li>• Shows only a minimal understanding of relationships among concepts</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to follow</li> <li>• No links</li> <li>• Very confusing and choppy in organization</li> <li>• Shows no real understanding of relationships among concepts</li> </ul>	<hr style="width: 50%; margin: auto;"/>

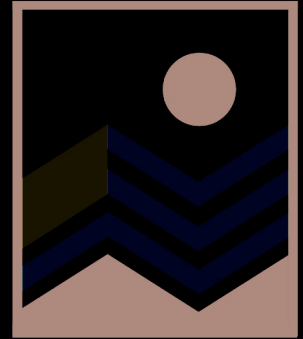


<b>Grammar and readability</b>	<ul style="list-style-type: none"> <li>• No spelling errors or grammar errors</li> <li>• Neat and easy to read</li> </ul>	<ul style="list-style-type: none"> <li>• Few spelling or grammar errors</li> <li>• Relatively neat and easy to read</li> </ul>	<ul style="list-style-type: none"> <li>• Some Spelling and grammar errors found</li> <li>• Somewhat messy and difficult to read</li> </ul>	<ul style="list-style-type: none"> <li>• Many spelling and grammar errors</li> <li>• Very difficult to read/ at times incomplete</li> </ul>	<hr/>
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# Cookie Mining Worksheet

Name: \_\_\_\_\_

Date: \_\_\_\_\_



AMERICAN COAL FOUNDATION

## Costs

### A. Land acquisition costs (price of cookie)

(Montana – \$3; Pennsylvania – \$5; Kentucky – \$7)

Name of property \_\_\_\_\_ \$ \_\_\_\_\_

### B. Equipment costs

Flat toothpick \_\_\_\_\_ x \$2 = \_\_\_\_\_

Round toothpick \_\_\_\_\_ x \$4 = \_\_\_\_\_

Paper clip \_\_\_\_\_ x \$6 = \_\_\_\_\_

Total equipment costs \$ \_\_\_\_\_

### C. Mining/excavation costs (chip removal)

Number of minutes \_\_\_\_\_ x \$1 labor = \_\_\_\_\_

Total excavation costs \$ \_\_\_\_\_

### D. Reclamation

(Original number of squares covered before cookie was mined = \_\_\_\_\_ )

Squares covered outside original outline after reclamation \_\_\_\_\_ x \$1 = \_\_\_\_\_

Total reclamation costs \$ \_\_\_\_\_

## Profit

### E. Mining valuation

Number of whole chips mined \_\_\_\_\_ x \$2 = \_\_\_\_\_

Gross profit \$ \_\_\_\_\_

## Calculating Net Profit/Loss

Start-up funds \$ 19

less total mining costs (A. + B. + C.) - \_\_\_\_\_

less total reclamation costs (D.) - \_\_\_\_\_

plus gross profit (E.) + \_\_\_\_\_

Total Net Profit/Loss \$ \_\_\_\_\_

CATEGORY	4	3	2	1
Question/ Purpose	The purpose of the group's mining lab is clearly identified and stated.	The purpose of the group's lab is identified, but is stated in a somewhat unclear manner.	The purpose of the group's lab is partially identified, and is stated in a somewhat unclear manner.	The purpose of the group's lab is erroneous or irrelevant.
Materials	All materials and setup used in the lab are clearly and accurately described. Cost of each material is clearly listed.	Almost all materials and the setup used in the experiment are clearly and accurately described. Cost of most materials are clearly listed.	Most of the materials and the setup used in the experiment are accurately described. Cost of materials may be unclear or not present.	Many materials are described inaccurately OR are not described at all. Cost of materials may be unclear or not present.

Data Collected	Professional appearance. Accurate data collected and represented in data tables and/or graphs. Graphs and tables are labeled and titled.	Accurate data collected and represented in data in tables and/or graphs. Graphs/tables are labeled and titled.	Accurate representation of the data in written form, but no graphs or tables are presented.	Data are not shown OR are inaccurate.
Calculations	All calculations are shown and the results are correct and labeled appropriately.	Some calculations are shown and the results are correct and labeled appropriately.	Some calculations are shown and the results are labeled appropriately.	No calculations are shown OR results are inaccurate or mislabeled.
Summary	Summary describes the skills learned, the information learned and some future applications to real life situations.	Summary describes the information learned and a possible application to a real life situation.	Summary describes the information learned.	No summary is written.

Appearance/ Organization	Lab report is neatly written and uses headings and subheadings to visually organize the material.	Lab report is neatly handwritten but format may be difficult to follow.	Lab report is neatly written or typed, but formatting does not help visually organize the material OR missing a lab component.	Lab report is handwritten and looks sloppy with cross-outs, multiple erasures and/or tears and creases. OR missing a component.
Participation	Used time well in lab and focused attention on the experiment.	Used time pretty well. Stayed focused on the experiment most of the time.	Did the lab but did not appear very interested. Focus was lost on several occasions.	Participation was minimal OR student was hostile about participating.

	<b>Proficient 10 pts</b>	<b>Adequate 7 pts</b>	<b>Progressing 4 pts</b>	<b>Beginning 1 pts</b>
<b>Group Work</b>	<p><b>Proficient</b> Students worked together as a cohesive group. Freely expressing ideas with no verbal altercations.</p>	<p><b>Adequate</b> Students worked together as a group. Expressing ideas with few verbal altercations.</p>	<p><b>Progressing</b> Students struggled to work together as a group. Few ideas were shared.</p>	<p><b>Beginning</b> Students could not work well together as a group.</p>
<b>Creativity</b>	<p><b>Proficient</b> Completed all of the requirements by taking historical information and creating an engaging children's story.</p>	<p><b>Adequate</b> Completed most of the requirements by taking historical information and creating an engaging children's story.</p>	<p><b>Progressing</b> Completed some of the requirements by taking historical information and creating an engaging children's story.</p>	<p><b>Beginning</b> Did not complete any of the requirements by taking historical information and creating an engaging children's story.</p>
<b>Organization</b>	<p><b>Proficient</b> The book shows that the author has a clear understanding of the sequence of events.</p>	<p><b>Adequate</b> The book shows that the author has an adequate understanding of the sequence of events.</p>	<p><b>Progressing</b> The book shows that the author has some understanding of the sequence of events.</p>	<p><b>Beginning</b> The book shows that the author has little or no understanding of the sequence of events.</p>
<b>Spelling/Grammar</b>	<p><b>Proficient</b> .Errors in grammar, punctuation and capitalization are not found (0). Errors in spelling are not found (0).</p>	<p><b>Adequate</b> Minimal errors are found (1-2). They do not detract from the general flow of the story. Minimal errors are found in spelling, (1-2).</p>	<p><b>Progressing</b> There are several errors (3-4) that detract from the overall meaning and flow of the story. There are several errors in spelling, (3-4).</p>	<p><b>Beginning</b> There are so many errors in spelling, punctuation and grammar (5+) that reading is completely overshadowed by the quantity of those errors.</p>
<b>Presentation</b>	<p><b>Proficient</b> Reading flows easily. Were able to capture the interest of their audience.</p>	<p><b>Adequate</b> Minimal errors in reading are heard. Were able to capture the interest of their audience.</p>	<p><b>Progressing</b> Several errors in reading are heard, or reading is choppy. Lacked some ability to capture the interest of their audience.</p>	<p><b>Beginning</b> Many errors in reading are heard, or reading is difficult to follow. Unable to maintain the interest of their audience.</p>

CATEGORY	4	3	2	1
Information Gathering/ Research	Accurate information taken from several sources in a systematic manner.	Accurate information taken from a couple of sources in a systematic manner.	Accurate information taken from a couple of sources but not systematically.	Information taken from only one source and/or information not accurate.
Scientific Knowledge	Explanation indicates a clear and accurate understanding of scientific principles underlying the reasons for reclamation of land	Explanation indicates a relatively accurate understanding of scientific principles underlying the reason for land reclamation	Explanation indicates relatively accurate understanding of scientific principles underlying reason for land reclamation.	Explanation does not illustrate much understanding of scientific principles underlying the reason for land reclamation.
Plan	Plan is neat with clear measurements and labeling for all components including but not limited to plants, space required, man power, and cost of reclamation.	Plan is neat with clear measurements and labeling for most components previously mentioned.	Plan provides clear measurements and labeling for most components previously mentioned.	Plan does not show measurements clearly or is otherwise inadequately labeled.
Construction - Materials	Appropriate materials were selected for land and creatively modified in ways that made them even better.	Appropriate materials were selected for land and there was an attempt at creative modification to make them even better.	Appropriate materials were selected for land.	Inappropriate materials were selected and contributed to a product that performed poorly.
Proposal	Proposal provides a	Proposal provides a	Journal provides quite a bit of	Journal provides very little detail

<b>Power Point</b>	<b>Excellent Quality</b>	<b>Standard Quality</b>	<b>Below Standard Quality</b>
<b>Content</b>	<ul style="list-style-type: none"> <li>Content is accurate and information is presented in a logical order.</li> <li>Topic content is well covered.</li> <li>A variety of sub-topics are covered well.</li> <li>All sources are clearly identified using appropriate citation format.(info, photos, graphics)</li> </ul>	<ul style="list-style-type: none"> <li>Content is accurate but some of the information is not presented in a logical order but is still generally easy to follow.</li> <li>Topic content is adequately covered.</li> <li>Contains adequate number of sub-topics that are covered well.</li> <li>Most sources are clearly identified using appropriate citation format.</li> </ul>	<ul style="list-style-type: none"> <li>Content is lacking information and information is not presented in a logical order making it difficult to follow.</li> <li>Topic content is poorly covered.</li> <li>Contains little or no sub-topics</li> <li>Most sources are not clearly identified or don't use appropriate citation format.</li> </ul>
	10-9 points	8-6 points	5-1points
<b>Slide Creation</b>	<ul style="list-style-type: none"> <li>Presentation flows well and logically. Presentation reflects extensive use of tools in a creative way.</li> <li>Transitions are smooth and interesting and enhance the presentation.</li> </ul>	<ul style="list-style-type: none"> <li>Presentation flows well. Some tools used to show acceptable understanding.</li> <li>Smooth transitions are used on some slides.</li> </ul>	<ul style="list-style-type: none"> <li>Presentation is poorly organized. Tools are not used in a relevant manner.</li> <li>Very few transitions used and/or distract from the presentation.</li> </ul>
	5 points	3-4 points	1-2 points
<b>Graphics, Pictures, Font and Background</b>	<ul style="list-style-type: none"> <li>Graphics are attractive and support the theme and content.</li> <li>Layout of images is pleasing to the eye.</li> <li>Font and background are carefully planned to complement the topic.</li> </ul>	<ul style="list-style-type: none"> <li>Graphics are overall attractive and often support the theme and content but could be better suited.</li> <li>Layout is at times cluttered.</li> <li>Font and background complement the topic so as not to distract from information.</li> </ul>	<ul style="list-style-type: none"> <li>Graphics are not very attractive and often detract from the theme and content.</li> <li>Layout has little detail or images.</li> <li>Choice of Font and background cause difficulty in reading the information and detracts from content at times.</li> </ul>
	5 points	3-4 points	1-2 points
<b>Grammar and spelling</b>	<ul style="list-style-type: none"> <li>Information provided is grammatically correct.</li> <li>No spelling errors.</li> <li>Text is in student's own words.</li> </ul>	<ul style="list-style-type: none"> <li>Information provided has some grammar errors</li> <li>Some spelling errors were made.</li> <li>Most of text is in student's own words.</li> </ul>	<ul style="list-style-type: none"> <li>Information provided has many or some grammar errors.</li> <li>Many spelling errors were made.</li> <li>Most of the text was copied.</li> </ul>
	5 points	3-4 points	1-2 points
<b>Presentation</b>	<ul style="list-style-type: none"> <li>Demonstrates excellent knowledge of topic without referring to notes or reading off slides. Keeps eye contact with audience all of the time.</li> <li>Speaks clearly, loud enough, and with good inflection.</li> <li>Maintains audience's interest in topic.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates good knowledge of topic without referring to notes too often or reading info off the slides. Keeps eye contact with the audience most of the time.</li> <li>Speaks clearly, loud enough and with good inflection most of the time.</li> <li>Maintains audience's interest in topic most of the time.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates poor knowledge of topic. Often refers to notes and slides. Rarely looks at audience.</li> <li>Mumbles or speaks too fast or too slow. Speaks too softly and with little inflection.</li> <li>Does not maintain audience's interest or rarely does.</li> </ul>
	5 Points	3-4 points	1-2 points

## Coal Mining Effect on Towns and Individuals