

CEDAR

(Coal Education Development and Resource)

of Southern West Virginia, Inc.

COAL STUDY UNIT PROGRAM

2018-2019 School Year

**Mingo, Logan, Boone, McDowell,
Wyoming & Wayne Counties, West Virginia**

DISCLAIMER

Please be advised that CEDAR of Southern West Virginia, Inc's goal is to enable you to form a knowledgeable and unbiased opinion of the coal industry. Although the programs and materials provided by CEDAR focuses on the benefits the industry has, and continues to provide each of us, we encourage you to investigate claims concerning the relationship between carbon-based resources, such as: oil, natural gas, and coal, and their possible effects on the environment, such as the climate change issue.

Although CEDAR is convinced that the benefits of coal far exceed any negative effects, this is a decision you should make by investigating both sides of the issue, thus enabling you to reach an informed and independent decision on this very important topic.

***All past financial documentation must be submitted before current grant will be considered.**

COAL STUDY UNIT PACKET CONTENTS

Enclosed you will find information that will explain the program, along with instructions on how to apply for a grant. This packet contains the following:

- Page 2 Coal Study Unit Packet Contents
- Page 3 Coal Study Unit Guidelines
- Page 4-6 CSU Application/Grant Request Form
- Page 7 Grant Request Itemization
*This form must be completed showing individual items, and description of use, necessary to implement your unit. **NOTE: Only line items will be approved for purchase by the Grant Review Committee. Also, please be advised that the grant recipient must reimburse any expenditure not pre-approved by CEDAR.***
- Page 8 Tour Request Form
- Page 9 Notice of Non-Approved Items
- Page 10-11 Resource List
- Page 12 Resource Order Form
- Page 13 Time Line
- Page 14-15 CSU Reporting Format/Guide
Informational guide to completing a Coal Study Unit Report.
- Page 16 CSU Grant Reconciliation Form
Report required by CEDAR.
- Page 17 UNIT REPORT – COVER PAGE
Required to accompany submission of final Unit Report
- Page 18 Judging Criteria/Scoring Sheet

If you should have any questions, please do not hesitate to contact:

Crystal Hensley, Coal Study Unit Manager
304/855-7633
crystal.hensley@me.com

COAL STUDY UNIT GUIDELINES

- PURPOSE:** Design a unit to teach students about the importance of coal in their daily lives. The unit should teach critical thinking and decision-making about coal, including the role of coal in the nation's energy future, in the economics of West Virginia and the nation, the historical and cultural aspects of coal production, and the challenges and possibilities relating to production and using coal while protecting the environment.
- DESCRIPTION:** Develop a unit of study based on coal involving as many students as possible. Suggested topics:
- | | |
|-------------------------------|------------------------------------|
| <i>Science of coal</i> | <i>Economics of Coal</i> |
| <i>Mining methods</i> | <i>Culture changes affected by</i> |
| <i>Coal preparation</i> | <i>the coal industry</i> |
| <i>Uses of coal</i> | <i>Environmental or Safety</i> |
| <i>Transportation of coal</i> | <i>Coal Careers</i> |
| <i>Other: Explain</i> | |

Unit implementation may include activities outside as well as in the classroom.

Grant applications are due **October 12, 2018**. CEDAR will make every effort to respond **by December 1, 2018**. Unit implementation will be January through April of the **2018-2019** school year, with the Final Report due with post mark date of no later than **April 19, 2018**.

- RECOGNITION** The first, second, and third place awards for each of the three grade levels will be based on percentage points as follows:
- 1st - \$6.00 per Average Percentage Point Scored
 2nd - \$4.00 per Average Percentage Point Scored
 3rd - \$2.00 per Average Percentage Point Scored

Each teacher participating will be recognized at a Teacher Recognition and Awards Banquet on [date and location to be announced later](#).

NOTE: ALL UNITS SUBMITTED BY THE DEADLINE AND MEETING THE REPORTING CRITERIA WILL BE JUDGED.

CEDAR of Southern West Virginia, Inc. will make every effort to address any need you have for additional educational materials not included in your packet, or for outside speakers to address your group in a particular area of study. Your requests should be made to **Crystal Hensley at 304/855-7633**.

**CEDAR OF SOUTHERN WEST VIRGINIA, INC.
COAL STUDY UNIT
APPLICATION / GRANT REQUEST FORM**

1. Applicant's Name
2. Home Mailing Address
3. Home Phone Cell Phone
4. Email Address
5. School Name
6. Grade
7. Anticipated Number of Students to be Involved in Study Unit
8. Coal Study Unit Title
9. Number of Classroom Teachers at this School
10. Number of Teachers Teaching this Unit

NOTE: PLEASE LIST THE NAMES AND ADDRESSES OF ANY OTHER TEACHER THAT WILL BE INVOLVED IN THE TEACHING OF THIS UNIT. *(Do not list other teachers in your school who will be submitting or has submitted a separate grant request.)*

***The applicant (#1) is responsible for submitting the written report and financial report per CEDAR Guidelines and Grant Agreement. All requested items must support/tie-in to your Unit Goal.**

THIS APPLICATION (Pages 3, 4, and 5) AND THE GRANT REQUEST ITEMIZATION FORM (Page 6) **MUST** BE COMPLETED AND POST-MARKED NO LATER THAN **OCTOBER 12, 2018**, IN ORDER TO ASSURE CONSIDERATION.

SEND TO: **CEDAR/Crystal Hensley
8102 North Fork Rd.
Chapmanville, WV 25508
PHONE # 304/855-7633**

CEDAR invites you to examine CURRENT issues regarding the mining and/or use of coal at the regional, state, national, or international level, or any combination thereof. **A balanced approach on all issues is encouraged when investigating what is happening with this natural resource and how it impacts our lives.** *Note: If you choose to include some of the cultural/aesthetic aspects, please weave them into the teaching unit while keeping a focus to CURRENT issues related to the coal industry.* The implementation of multiple subject areas is encouraged. Completed and thorough responses are very important in considering your request. You may use additional paper, if needed. **FORMAT: Typed submissions, please. Expand fields as needed.**

1. **UNIT GOAL:** What is the specific focus of this unit of study about coal? What current coal issue will you address. Please be specific.

Examples: (You may choose another aspect as it relates to current issues and West Virginia's Program of Studies and Core Content.)

- | | | |
|------------------------------|-----------------------------------|-------------------------------|
| -Careers | -Economical Impact | -Safety |
| -Coal, Impacting Daily Lives | -Education/Training/Skills Needed | -Transportation |
| -Chemical Analysis of Coal | -Electric Generation w/coal | -Uses of Math/Science in Coal |
| -Clean Coal Technologies | -Environmental Issues | -Uses of Coal |
| -Different Types of Mining | -Reclamation Practices | |

Anticipated length of time for this unit of study (**# of Weeks and Hours Per Week**)?

2. **(a) ESSENTIAL QUESTIONS:** What do your students *want to know* about coal and current issues regarding this natural resource? (Minimum of three)

(b) How will you engage students in decision-making about this coal study unit?

3. **CONTENT:** (Relate to West Virginia CSO's. Specify Learning Goals/Core Content) *Remember: You may alter this form as often as you have need.*

4. **(a)** Students will engage in the following activities as they study this topic. List and give a brief description of the learning activity. NOTE: Students' products may be included as evidence for a school's Program Review. (The supplies/materials listed here must match those listed in the Grant Request Itemization Form on page 7)

Some Examples – Using technology, including internet; research and current reading related materials such as: newspapers and coal journals; watching current televised newscasts; interviews; writing letters to industry leaders and/or officials; learning logs; class presentations; writing to learn and writing to apply; writing for inquiry; writing an editorial for local newspaper. If you request a field trip, please explain learning connections.

- (b)** Students will demonstrate learning in the following ways. Please make connections which link learning to state assessment. (i.e., Constructed Response, Open Response, On Demand, Multiple Choice). You may include sample prompts.

- (c)** What types of individual student and/or class products will provide evidence of student learning? (Be Specific/Be Creative)

(Some Examples – Grade appropriate: Technology designed/crafted products, Posters, Time Lines, Brochures, Articles, Models, KWL Chart (s), Class Books, Letters, Speeches, Journals, Response Logs, Photo Journals with Commentary, Videos, I-Pod Presentations, YouTube, PowerPoint, Reclamation Projects, Research, Internet Communications, Skits, Debates, Advertising Campaign etc..)

5. **ASSISTANCE:** Who will assist with this teaching unit? (Community members, teachers, parents, etc.)

6. Has this unit been taught by you or another teacher prior to this year? Yes No

If Yes: Teacher's Name/School Name/Year Taught

NOTE: If more space is needed, you may copy this form. Please make sure requested items are related to the focus/theme of your Unit and relate to the activities listed in question 4a. If, please explain their use.

**COAL STUDY UNIT
TOUR REQUEST FORM**
CSU# _____

	To be completed by the Grantee	For CEDAR's Use Only	To be completed by the Grantee in the Reconciliation Process
Regional Coal Fair Expected Expenses	Amount Requested	Amount Granted	Amount Spent
Number of Buses			
Mileage Costs			
Fuel Cost			
Driver Charges			
Subtotal			
Other possible trip:			
Number of Buses			
Mileage Costs			
Fuel Cost			
Driver Charges			
Subtotal			
Total			

NOTE: Money will be allotted first for tours of the CEDAR Regional Coal Fair, if CEDAR's total grant money allows additional trips, only one (in addition to the Regional Coal Fair) will be granted and it must relate to the focus/theme of your Coal Study Unit. If the tour is funded and you choose not to attend, the money for the tour will have to be refunded.

CEDAR NOTICE

Listed below are certain items that CEDAR generally does not approve as expenditures of grant money. Please submit a written explanation if any listed item would prevent you from implementing a unit. Please note, this list includes but is not limited to the following:

TVs
VCRs
Computer Hardware (Printers, Modems, Digital Cameras, etc.)
Camcorders
Cameras Other Than Disposable
Cricut
Furniture or Fixtures
Engineering Equipment
Multiple Copies of Books or Software
Kitchen Utensils
Overhead Projectors
Laboratory Equipment (Kilns, Hot Plates, etc.)
Miscellaneous Items (Everything needs to be specified)
Food and/or Meal Expenses
Local School Fair Awards, Displays, Ribbons, etc.
T-shirts or Hats
Guest Speaker Fees or Gifts
Miscellaneous Items (Everything must be specified)

Note: Field trips, including the Regional Coal Fair, will be reviewed for approval on an individual basis. Items that will be allowed, within reason, are Driver, Gas, Mileage Fees, and Admission Costs. ***(Meal expenses will not be approved.)*** **Film/processing/printing will be limited to \$40/per teacher.**

CEDAR RESOURCE LIST

ONLINE

- **“Building a Future on Reclaimed Land”** This video highlights many of the diversified uses of land that has been made possible through the development of reclaimed land resulting from the practice of surface mining. This video is courtesy of Mr. Jim Booth, Booth Energy Group, and was produced by Vantage Point, Inc. vantagepointads.com
<http://youtu.be/HP5WbIKxzPs>
- **“Mining 101”** This video will provide you with an inside look at a state-of-the-art underground mining operation. This video is courtesy of Mr. Jim Booth, Booth Energy Group, and was produced by Vantage Point, Inc. vantagepointads.com
<http://youtu.be/DDT6kPR-qE>
Fossil Energy Study Guide – (US Dept. of Energy’s Office of Fossil Energy)
- **Elementary** – A 9 page leaflet addressing: What is Coal?; A Brief History of Coal: Coal Mining and Transportation; Converting Coal into Electricity; Delivering Electricity; Cleaning up Coal; Coal and Climate Change. Kit contains the following activities: Word Search (3 pages); Crossword Puzzle (4 pages); Conserving Electric Energy (3 pages); How Much Does It Cost to Light Your School? (3 pages).
http://energy.gov/sites/prod/files/Elem_Coal_Studyguide.pdf
- **Middle School** – An 11 page leaflet addressing: Coal – Our Most Abundant Fuel: A Brief History of Coal, Coal Mining and Transportation; Coal’s Role in Electrical Supply; Cleaning up Coal; Clean Coal Technology; Burning of Coal; Coal and Climate change.
http://energy.gov/sites/prod/files/2013/04/f0/MS_Coal_Studyguide_draft1.pdf
- **High School** – A 8 page leaflet addressing: Types of Coal; Use of Coal; How We Mine Coal; History of Coal; Coal and the Environment; Coal Gasification; Current Clean Coal Technologies; Carbon Sequestration.
http://energy.gov/sites/prod/files/2013/04/f0/HS_Coal_Studyguide_draft1.pdf

Online Video Library

- **All About Coal (12 Minutes)**. An entertaining and informative look at how coal is formed, mined, washed, transported, and used in electricity generation. A puppet, dressed as a miner, takes viewers on a tour of an underground and surface mine and power plant. **(Grades K-6) (AEP)**
<https://youtu.be/YYJ8zk9GGWY>
- **Coal: The Inside Story (16 Minutes)**. This video covers the formation, washing, transportation, and burning of coal to produce electricity. Host Tim Eisert walks through the phases of coal production at both underground and surface mining operations. **(Grades 7-12) (AEP)**
<https://youtu.be/t5SiffLD4Mw>
- **America’s Fuel (11 Minutes)**. This video demonstrates the importance of coal to the American economy and overall quality of life. A utility executive, a businessman, a former mayor and an economist/physicist each describe the benefits they have found from using coal as the source for their electricity. **(Grades 7-12) (CEED)**
<https://youtu.be/UskYVewwTE>
- **Coal People: A Century of Pride (24 Minutes)**. A tribute to coal mining people, this video is a cinematic journey that celebrates a proud workforce and its contributions to American progress. **(Grades 5-12) Peabody Coal)**
<https://youtu.be/8RMomXUfWHc>
- **Mining – Discoveries For Progress (10 Minutes)**. Video showing what today’s mining industry is all about. **(Grades K-12)**
<https://youtu.be/hhUXi9pPKSQ>
- **Coal Today** - A modern story about the new technologies and the people who produce coal and generate the power that is the foundation of our nation’s economy. **(Grades 6-12)**
<https://youtu.be/Jy1coZ8Fwsc>

Online Video Library Cont.

- **Common Ground – Modern Mining and You (27 Minutes).** Contains information on all forms of mining, including coal. (Grades K-12)
<https://youtu.be/GiN5aVvRLRk>
- **From Mines to Lines (27 Minutes).** Shows coal being mined and followed to its final destination....the power plant. (Grades 5-12)
<https://youtu.be/YiXLlIuoStA>
- **Coal Into Kilowatts (16 Minutes).** A tour of American Electric Power's Big Sandy Plant. (Grades K-12)
https://youtu.be/_2Cg4AdN2Hc
- **Balancing the Needs – Coal and the Environment (14 Minutes).** Coal's role in the past and future. (Grades 9-12)
<https://youtu.be/r2Vzrl5lnPk>
- **Clean Coal Technologies –** Video shows the process and benefits of clean coal technology – Coal-to-Liquid and CO2 Management. (Grades 5-12)
<https://youtu.be/acMb7HqzqX8>
- **Building a Future on Reclaimed Land** - This video highlights many of the diversified uses of land that has been made possible through the development of reclaimed land resulting from the practice of surface mining. This video is courtesy of Mr. Jim Booth, Booth Energy Group, and was produced by Vantage Point, Inc. vantagepointads.com
<http://youtu.be/HP5WbIKxzPs>
- **Mining 101** - This video will provide you with an inside look at a state-of-the-art underground mining operation. This video is courtesy of Mr. Jim Booth, Booth Energy Group, and was produced by Vantage Point, Inc. vantagepointads.com
<http://www.youtube.com/watch?v=DDT6kPR-qE&feature=youtu.be>
- **Coal 101 (2.49 Minutes)** - Coal is a combustible black or dark brown rock consisting of carbonized plant matter, found mainly in underground deposits and widely for electricity production.
https://youtu.be/iN6LvH_4Q3g

BOOKLETS

- **What Everyone Should Know About Electricity From Coal** – 15 page illustrated booklet that explains how electricity is generated from coal and delivered to homes **(Grades 4-12)**.
- **What Everyone Should Know About Land Reclamation** – 15 page illustrated booklet that describes the land reclamation process. **(Grades 4-12)**.
- **What Everyone Should Know About Coal** – 15 page illustrated booklet which describes the types of coal, the basic ways to mine coal, how coal is used, how it affects the environment and new technologies. **(Grades 4-12)**.
- **Let's Learn More About Coal** – 16 page booklet that uses activities, such as puzzles and word games to explain how coal is formed, produced and used in the United States. **(Grades 3-6)**.
- **Mining Glossary and Games** – An easy-to-use collection of more than 600 mining terms designed to help students learn the basics of mining. Also included - 28 games and activities that help students learn and retain significant words dealing with mining and minerals. **(Grades K-8) (Limit One per Unit)**
- **Coal Today** – A 32 page booklet on coal, a coal miner's life, coal and electricity, and coal glossary. **(Limit One per Unit)**
- **Coal and the Environment** – A 64 page booklet that addresses the appropriate balance of policies for maximizing our country's resources, meeting energy needs, and providing a healthy environment. **(Limit One per Unit)**

NEWSPAPERS

- **The Energist – Coal** – Newspaper format publication which discusses the formation and types of coal and their locations; coal production/mining technologies; coal uses; synthetic fuels from coal; new coal technologies; coal and the environment; and coal characteristics. **(Grades 6-12)**.
- **The Energist – Getting to Know Electricity** – Electric current and resistance; chemical, thermo, and static electricity; transformers, motors, and generators; circuits, generation, and distribution; load management, billing, safety, and conservation.
- **Mining Reclamation Primer** – An 8 page newspaper format publication that discusses Mining Reclamation, the laws that impact reclamation, phases of reclamation, etc. This is a companion piece for the Mining Reclamation Poster. (Grades 6-12).

POSTERS

- **Mining Reclamation Poster** – Colorful poster with a technical focus on the process of reclamation from pre-mining activities to future beneficial use of the reclaimed land.
- **From The Mine To My Home** – Created to teach five stages relating to mineral resources: exploration, mining, processing, consuming, and recycling.
- **Coal** – Attractive, colorfully illustrated poster is used to convey information on the formation, exploration, extraction, transportation, and uses of coal.
- **Electrical Generation** – Illustrates the energy sources of electricity – fossil fuels, nuclear, hydro and renewable – and the transmission and distribution of electricity.
- **Reclaimed Mine Site** – Highlights the many uses of fully reclaimed mine sites: golf courses, recreation areas, schools, prisons and airports.
- **Act Responsibly: Stay Out and Stay Alive** - Highlights a series of safety situations that one may encounter around abandoned, idle, and inactive mines.

GUEST SPEAKERS

Specialized Speakers (engineering, reclamation, underground mining, trucking, etc.) will be scheduled upon request to [Crystal Hensley 304/855-7633](tel:3048557633).

RESOURCE ORDER FORM

The following materials are available at no charge. Check items you wish to receive and indicate number of copies you will need (based on number of students). Please note that due to the expense of some of these items, only one or two will be provided per class.

RESOURCE	COPIES
<u>BOOKLETS</u>	
What Everyone Should Know About Electricity From Coal	
What Everyone Should Know About Land Reclamation	
What Everyone Should Know About Coal	
Let's Learn About Coal	
Mining Glossary and Games (<i>Limit One Per Unit</i>)	
Coal Today (<i>Limit One Per Unit</i>)	
Coal and the Environment	
<u>NEWSPAPERS</u>	
The Energist – Coal (<i>Grades 5-12 Only</i>)	
The Energist – Getting to Know Electricity (<i>Grades 5-12</i>)	
Mining Reclamation Primer (<i>Grades 6-12 Only</i>)	
<u>POSTERS (Limit Two Per Class)</u>	
Mining Reclamation	
From The Mine To My Home	
Coal	
Electrical Generation	
Reclaimed Mine Site	
Act Responsibly: Stay Out and Stay Alive	

Name: _____ School: _____ Grade: _____

Home Address: _____

Home Phone Number: _____ Cell Number: _____

**CEDAR OF SOUTHERN WEST VIRGINIA, INC.
COAL STUDY UNIT
TIME LINE**

October 12, 2018

To assure consideration - grant request forms must be **POST-MARKED NO LATER THAN THIS DATE** and mailed to:

**CEDAR/Crystal Hensley
8102 North Fork Rd.
Chapmanville, WV 25508
PHONE # 304/855-7633**

December 1, 2018

CEDAR's response to grant requests to be emailed by this date.

January - April

Unit implementation.

April 19, 2019

Unit Summary Report to be post-marked **NO LATER THAN THIS DATE:**

**CEDAR/Crystal Hensley
8102 North Fork Rd.
Chapmanville, WV 25508
PHONE # 304/855-7633**

May 20, 2019 (tentatively)

Teacher recognition and awards banquet will be held at the **Logan County Club in Chapmanville, WV.**

CEDAR OF SOUTHERN WEST VIRGINIA, INC.
UNIT SUMMARY REPORT - REPORTING FORMAT

Your report ***must be*** in the following format:

- Double-spaced on 8 ½ x 11 paper. Typed in a professional font (Times, Geneva, Helvetica, other) and body of text must be size 12.
- Minimum of two (2) pages and maximum of six (6). (Not including the cover sheet or pages with photographs).
- The provided unit report cover page must be included.
- The report must include the following sections, with each section clearly identified:

Introduction

The purpose of the written summary is to “tell the story” of the teacher’s Coal Study Unit. The “story” should include an introduction, a description of the activities and goal, and a summary. **(NOTE: Please do not place your name or school’s name on any page of the report other than the report cover sheet)**

The Introduction should be a brief statement of “why” and “how” the unit started. This might include a description of how the specific unit topic was selected. For example, one award-winning teacher began with a description of how she and her students did a KWL (know/want/learned) activity before deciding on the unit topic. The teacher described how she and her students discussed what they KNEW about coal, what they WANTED to know about coal, and what they would LEARN as a result of the unit. This became the foundation from which the coal unit was developed.

The Introduction is extremely important as it provides the foundation for the remainder of the story. Teachers may want to consider the following questions when developing their introduction.

- How and why was the topic for the coal unit selected?
- Were educational objectives established for the unit? If so, what were they?
- Were students involved in planning the unit?

Description of the activities and goals(Including one (1) picture of each activity)

The next section of the report should show students actively engaged in the Coal Study Unit. Because of the variety of topics in the coal units, these student activities can range from regular classroom events to real-life activities, such as outdoor experiences, field trips, etc. The most important thing about this section is to show what the students “DID” as a result of the coal unit. **Note: A photograph of each activity performed in the unit is to be included with the report. Please submit only one (1) photograph per activity.**

CEDAR is interested in seeing a variety of meaningful student activities, be brief and provide an informative review.

- What activities were the most meaningful?
- Will the description of the activities show a clear relationship to the educational goals of the coal unit?

Summary

Every story needs a conclusion or summary, and this is especially true of the coal units. This section should provide information on the success of the unit through an examination/evaluation to determine if the educational goals were met. This examination of the unit's success should be conducted by the teacher and students. This component of the coal unit is, by far, the most overlooked one of a fully implemented and successful unit. The success of the unit should be determined, partially or in whole, by the goals and activities established at the beginning. A comprehensive evaluation can be achieved by answering the following questions:

- Were the educational goals of the unit accomplished?
- What, if anything, was not accomplished? Why?
- How was the unit evaluated? (i.e. teacher observation, completion of educational objectives and activities; student evaluation such as paper and pencil tests, performance events, open-response questions, community and/or parental input; surveys of participants, etc.)
- Did the students have an opportunity to evaluate the unit? If so, were their comments favorable? If not, did they have an opportunity to make suggestions for improvements?
- Will the unit be taught again? If so, will there be any changes?

**CEDAR GRANT
Reconciliation of Funds**

A complete financial accounting is required of all grant recipients. Receipts with complete explanations are required for each expenditure. Any unused or unaccounted-for grant money is to be returned along with your "Unit Summary Report".

A. Original Grant Amount _____

B. Itemization of Materials Purchased/Amount
(Note: Receipts for ALL Purchases Must Be Attached)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.

Total Amount of Expenditures _____

C. Amount to be returned to CEDAR _____

(Grant Recipient's Signature)

(School)

**CEDAR of Southern West Virginia, Inc.
Coal Study Unit Program
COVER PAGE FOR FINAL REPORT**

Grant Recipient's Name: _____

School Name: _____ **Grade:** _____

Home Address: _____

Home Phone: _____ **Cell Phone:** _____

Email Address: _____

Unit Title: _____

**CEDAR of Southern West Virginia, Inc.
Coal Study Unit
Judging Criteria/Scoring Sheet**

CSU No. _____

Grant Amount _____

No. of Students _____

Cost Per Student _____

	Points Possible	Points Awarded
<u>Authenticity of Unit</u> Did the unit address meaningful issues and concerns of students? Were the students actively involved in problem solving and analysis of issues? Were students asked to apply their knowledge and create possible solutions to problems? Did the unit require students to apply creative and critical thinking skills?	25	_____
<u>Topic</u> Was the topic timely and age-level appropriate for the students? Was the information accurate?	25	_____
<u>Student Involvement</u> The degree to which students were involved in the planning of the unit. Also, did the students have input in the way their learning was evaluated?	25	_____
<u>Number and Types of Topics Studied</u> Were the coal topics meshed with other topics relevant to the coal industry? Was there integration of the topic(s) into different subject areas of the curriculum?	25	_____
<u>Evaluation of Unit</u> How was the unit evaluated regarding its effectiveness? Were students involved in evaluating their unit?	25	_____
<u>Cost Effectiveness</u> Was grant money used effectively to implement the Unit?	20	_____
Judge's Initials _____	Total Points	_____