Coal Production in the USA -Primary

Title: Coal Production in the USA **Level:** Intermediate, Middle School

Time: 2-3 Days **KERA Goals**: 2.1, 2.

Objective: 1. Students will determine the leading coal producing states and calculate their productions totals. 2. Students will be able to sort the coal production data information according to alphabetical order by state and according to total tonnage per thousand short tons from highest to lowest. 3. Students will color code a map of the United States indicating coal production.

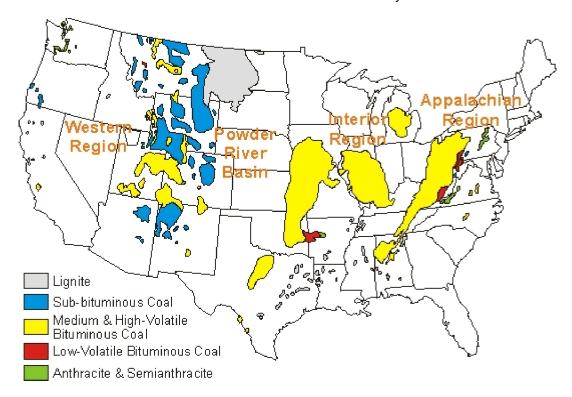
Materials:

- 1. Information sheet (below)
- 2. The map from the U.S. Department of Energy. (below) It shows where various kinds of coal (lignite, sub-bituminous, bituminous and anthracite) can be found. The chart below it shows which states mine coal and how much each produced in 1990.
- 3. Blank map of the United States
- 4. Crayons

Activity:

- 1. Arrange the states by alphabetical order. What is the first state listed? What is the last state? Estimate how much difference there is between the two figures.
- 2.. Find the top five coal producing states. What are their total production levels?
- 3. Find all of the states which begin with the letter "A" and whose coal production is less than 12,000 thousand short tons. Add the states totals. Is the value more, less, or equal to the sum of the totals for California and Oklahoma?
- 4. Based upon the map and information given, can you determine an estimate of the total number of tons of coal in the United States? . Why or why not? (Are all 50 states represented? Are thereoal reserves yet untapped?)
- 5. Color code a map of the United States indicating coal production.

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1989 U.S. Coal Production By State (Thousand Short Tons)					
State	Total	State	Total	State	Total
Wyoming	171,558	Kentucky	166,472	W. Virginia	153,143
Pennsylvania	69,542	Illinois	59,246	Texas	53,849
Virginia	42,766	Montana	37,742	Ohio	33,525
Indiana	33,631	North Dakota	29,555	Alabama	27,888
New Mexico	23,702	Utah	20,099	Colorado	17,115
Arizona	11,935	Tennessee	6,367	Washington	5,039
Missouri	3,377	Maryland	3,343	Louisiana	2,983
Oklahoma	1,728	Alaska	1,582	Kansas	854
lowa	427	Arkansas	39	California	41

Coal Production in the USA Answer Key				
Alphabetical:				
State	Total	State	Total	
Alabama	27,888	Montana	37,742	

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Alaska	1,582	New Mexico	23,702	
Arizona	11,935	North Dakota	29,555	
Arkansas	39	Ohio	33,525	
California	41	Oklahoma	1,728	
Colorado	17,115	Pennsylvania	69,542	
Illinois	59,246	Tennessee	6,367	
Indiana	33,631	Texas	53,849	
Iowa	427	Utah	20,099	
Kansas	854	Virginia	42,766	
Kentucky	166,472	Washington	5,039	
Louisiana	2,983	West Virginia	153,143	
Maryland	3,343	Wyoming	171,558	
Missouri	3,377			
The first state listed is Alabama27,888. The last state listed is Wyoming171,558.				

The difference, 171,558 - 27,888 = 143,670, or approximately 144,000.

The top five coal producing states:			
State	Total		
Wyoming	171,558		
Kentucky	166,472		
West Virginia	153,143		
Pennsylvania	69,542		
Illinois	59,246		

States that start with "A" and have more than 12,000 thousand short tons:			
State	Total		
Alaska	1,582		
Arizona	11,935		
Arkansas	39	12 FFC > 1 7CO	
Total	13,556	13,556 > 1,769	
California	41		
Oklahoma	1,728		

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Total	1,769		
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