

Review Questions Topic 17: Fossil Fuels

What are the main constituents of coal?

Which source of fuel is the source of the majority of electricity production in the US today?

Which source of fuel is the source of the majority of transportation energy used in the US today?

What uses other than for energy production, does petroleum have?

Explain how ancient coal swamps formed coal

What are five characteristics typical of such coal-forming environments (today and in the past)?

What are the four major grades of coal?

Explain how coal is used to produce electricity

What roles do the precipitator and scrubber play in a coal-fired power plant?

What is the oldest available evidence of coal use in the archeological record? Who used it?

How did ancient people figure out that coal can burn?

What is the historical relationship between deforestation and the use of coal?

What was the “Age of Steam”?

Why was getting “coal” from Santa Clause viewed as so negative?

What drove the major increase in coal production in the US beginning in the 1960s?

What impact did the Clean Air Act and the formation of the EPA have on US coal production?

What decade of the 20th century saw the peak in coal mining employment in the US?

Some have claimed that environmental regulations have caused the dramatic reduction in coal mining jobs in the US. What has ACTUALLY been driving the loss of coal mining jobs for much of the 20th century?

What is the major difference between how coal can be mined in the Eastern vs. the Western Coalfields?

Which coalfield actually increased production and employment following the Clean Air Act? What's the connection?

How do the coalfields compare in terms of miner's hours per ton of coal mined?

What drove the decline in coal production in the US in the early 2000s? (hint: no it was not environmental regulation)

What are six impacts of coal burning and mining that negatively impact the environment (other than producing greenhouse gases)?

Explain how crude oil forms

What has happened to the majority of the world's petroleum in geological time?

Explain the geology necessary to create an enriched oil trap?

How are refineries used to produce different types of petroleum products?

What is natural gas?

What are "pore spaces" and what do they have to do with oil and gas traps?

Explain the refining process of natural gas

What is the difference between porosity and permeability?

Explain why drilling into an unconventional reservoir quickly leads to a dry well?

What is fracking and how is it used to make unconventional reservoirs productive gas producers?

Why is "natural gas" often referred to as a "clean fuel"? Is this true as far as Greenhouse Gases is concerned?