Video Guided Viewing

Crude: The Incredible Journey of Oil

Name:

Where does **oil** come from? What is the *basic material* that makes up this vital substance?

What role does **carbon** play in the creation of crude oil? *What is unique about this essential element?*

How does **phytoplankton and bacteria** in nutrient-rich water contribute to the *formation of oil beneath the ocean floor? Explain.*

How does the energy in *carbon-rich shale transfer into crude*? **Where** does this process take place?

Why is oil so incredibly valuable as an energy source? *What is exceptional about its energy density?*

How much oil does the average American *use each day*? **How is this consumption broken down?**

What is the largest oil field on earth? Where is it located? How did the discovery of the **Gwar Reservoir** affect the global demand for oil?

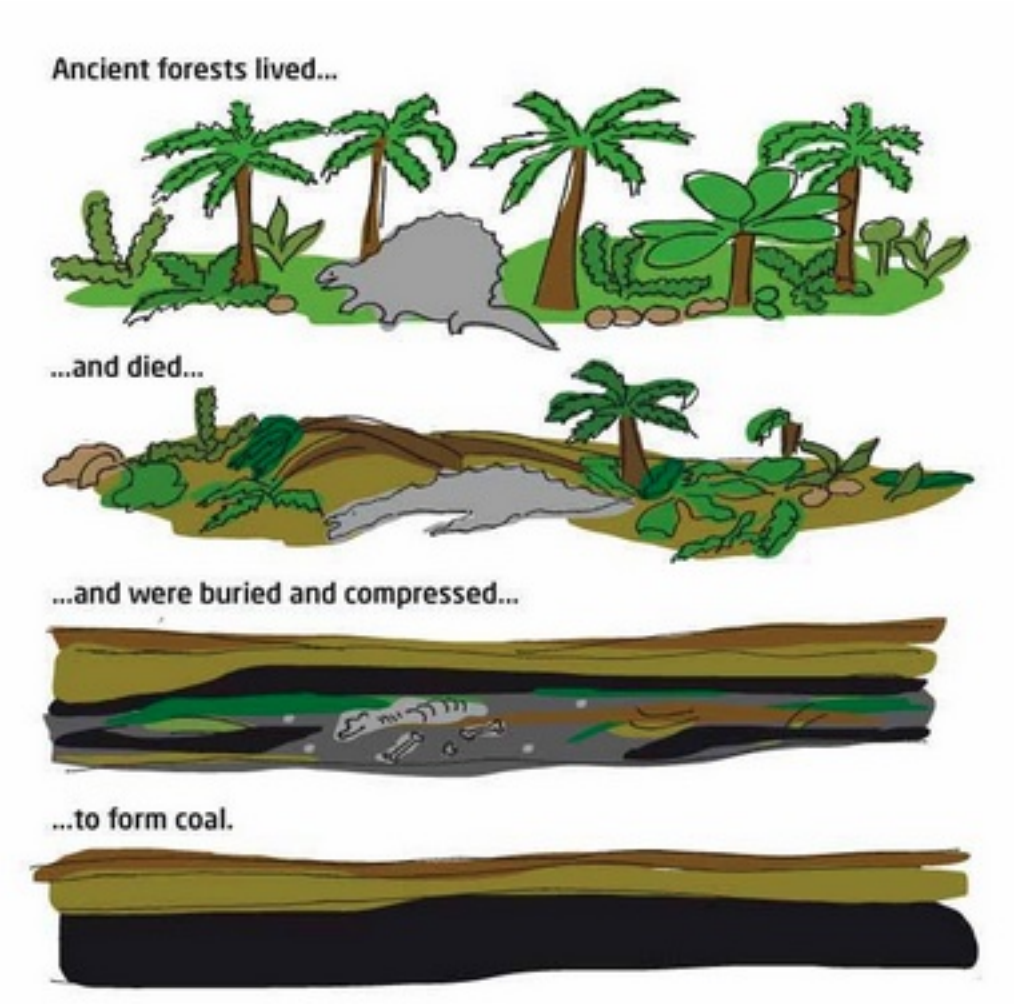
When did the U.S. oil supply peak? **When** is the global oil supply predicted to peak? *What does this mean for the cost of oil?*

What do fossilized ginkgo plants tell us about the carbon dioxide levels of the **Jurassic period**? *What did this super-greenhouse world look like*?

What are the global repercussions of our oil use? What does this mean for our climate in the future? *What are the signs that this climate change has already begun?*

Crude oil is derived over millions of years from a long and complex process. Based on what you've learned from watching *Crude*,

WRITE a concise, **step-by-step timeline or flow chart** for the evolution of crude, beginning with a description of the prehistoric atmospheric and oceanic conditions, and ending with a modern use of this vital energy source. **Be sure to include the materials and processes that shape the production of crude oil. (*15 points)***



Crude followed the incredible journey of a single carbon atom from the Jurassic period through the modern day. Use your imagination and **draw an 8-box comic strip** about a different carbon atom's journey, beginning in prehistoric times and ending in the present day. Describe the form carbon takes at 8-10 stages throughout these miraculous transformations- and make sure to include its time spent bound up as an essential component of crude, and ultimately the form it takes in an oil by-product today. **(20 Points)**