

Worksheet for History Channel's *Crude*
Part I

1. _____ are microscopic harvesters of ancient sunlight.

2. The advent of automobiles sparked interest in recovering oil because it's a _____, _____, _____, and _____ source of energy.

Abundant

Cheap

Commercial

Convenient

Easy

Profitable

Rich

3. Oil is concentrating millions of years of _____ into a liquid.

4. **T or F** When planktonic organisms die, their remains settle to the ocean floor and accumulate layer by layer.

5. _____, _____ dioxide (CO₂), and hydro _____s are the central characters in the story of crude oil. (*Hint: all the blanks are the same word.*)

6. Too little CO₂ in the atmosphere and the entire planet will _____, too much and it will _____ all over.

7. Phytoplankton cells float near the water surface and soak up _____, converting CO₂ to _____ by _____.

CO₂

Mud

Oil

Osmosis

Photosynthesis

Sugar

Sunlight

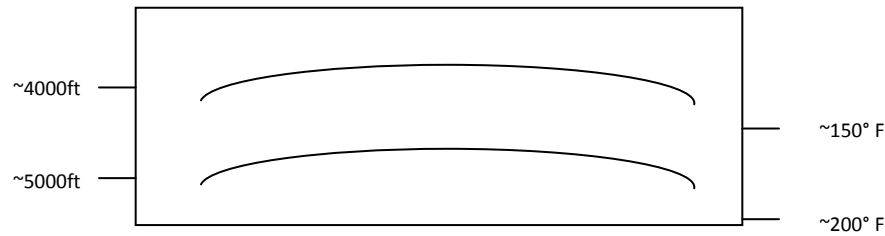
8. **T or F** Phytoplankton blooms can be visible from space.

9. Define "anoxic" and describe how water becomes anoxic. _____

10. **T or F** In an anoxic area there is no life to churn up and obliterate the layers of decaying animals so the igneous layering is very well preserved.

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11. Shale is cooked inside the Earth, and the final product depends on depth (since depth determines pressure and heat). Please draw the layers and petroleum products described.



12. Thick black shales were laid down in the Middle East [during the reign of the dinosaurs], so many that _____ of the world's oil supply comes from organic sediments buried here.

13. [There are] a number of things that are absolutely required for giant oil fields:

- a. Really rich _____ from which carbon can be cooked,
- b. Really excellent _____ where the oil can migrate through and be trapped,
- c. Really good _____ that actually locks the oil in place,
- d. Really gentle structures, folded structures which geologists call _____ in which the oil could sit.

14. Most of the world *contains / is devoid of* oil because these special conditions *are met / are not met* in lots of places around the globe.

15. Our central character slowly oozed through the most _____ and _____ rocks available until it could go no further, and trickled into _____ pore spaces.

CO₂ Holey Limestone Oily Permeable Porous Tangible