



Finding Out About Oil - A Fossil Fuel

Use the site <http://www.energy.ca.gov/> .

Click on **energy quest**, then **Energy Story**, and choose **Chapter 8 (Fossil Fuels...)**

- 1) What are the 3 main fossil fuels?
- 2) What were fossil fuels formed from?
- 3) More specifically, what is oil formed from?
- 4) How long ago was oil formed?
- 5) How was oil formed?
- 6) Where is oil found nowadays?
- 7) What happens at an oil refinery?
- 8) Name at least 6 products of crude oil.
- 9) Crude oil is a hydrocarbon - what 2 elements does it contain?



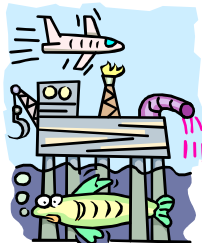
Next use

<http://www.elmhurst.edu/~chm/onlcourse/chm110/oulines/distill.html>

- 10) Crude oil is a mixture of hydrocarbons that are chain-like molecules. The hydrocarbons can be separated into "fractions" by their different boiling points. When crude oil is heated, which hydrocarbons boil off first - the long chain ones or the short chain ones?

- 11) Why? (clue: spaghetti strands).

- 12) Draw or cut and paste the diagram of the crude oil distillation tower to put in your book.



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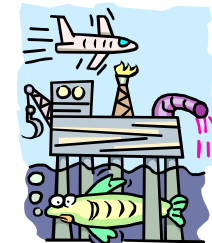
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Hydrocarbons

- 1) What are hydrocarbons?
- 2) How do companies obtain them?
- 3) Name 5 hydrocarbons
- 4) Give one use for each of these hydrocarbons
- 5) For each use, give the benefits f using the hydrocarbon
- 6) What products are made when hydrocarbons burn?
- 7) Where do these products end up?
- 8) What problems do they cause?

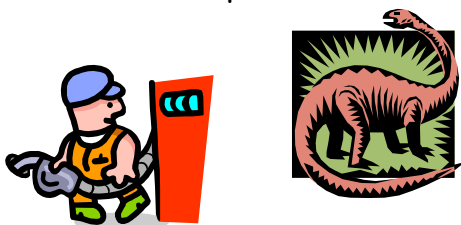
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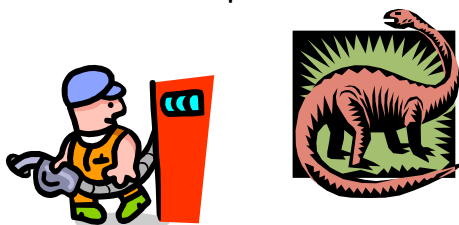
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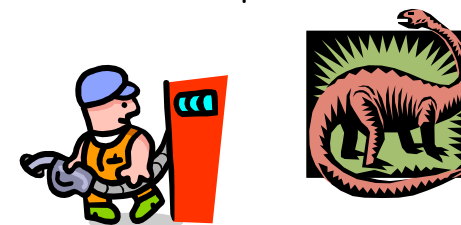
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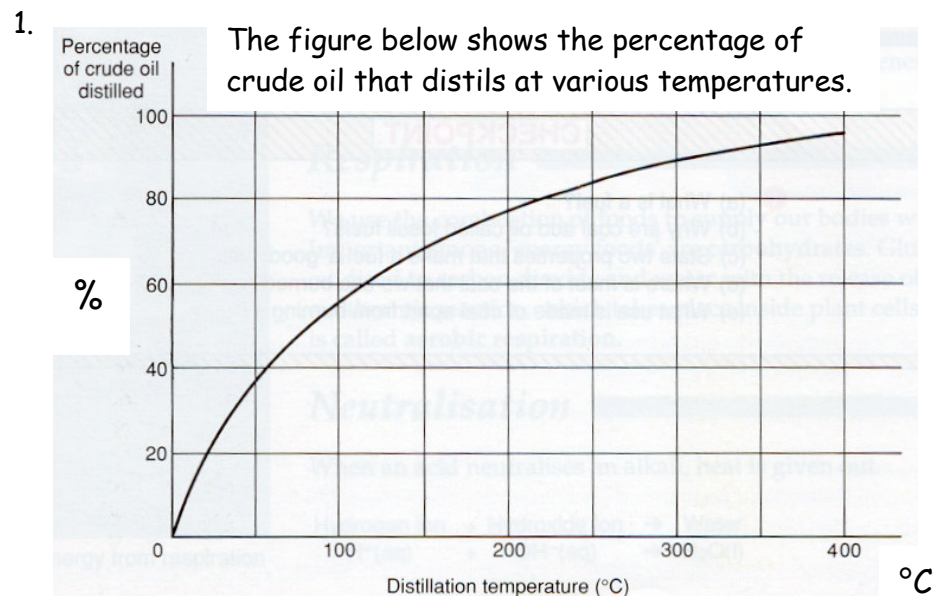
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GCSE Questions:

OIL



From the graph, read the percentage of crude oil that distils:

- (i) below 70°C
- (ii) between 120 and 170°C
- (iii) between 170 and 220°C
- (iv) between 220 and 270°C
- (v) between 270 and 320°C
- (vi) above 320°C.

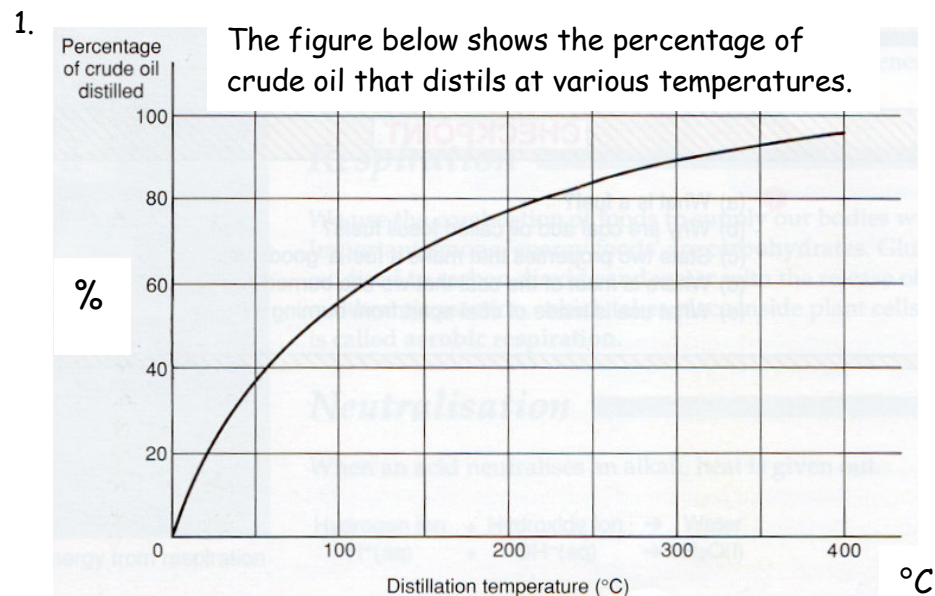
2. A barrel of Middle East oil contains 160 litres. From it are obtained: natural gas (7 litres), kerosene (7 litres), petrol (9 litres), gas oil (41 litres), naphtha (23 litres), fuel oil (73 litres). Show these figures as a pie-chart.

- 3.(a) How are petrol and kerosene obtained from crude oil?
- (b) What is the name of the process for converting heavy fuel oil into petrol. What are the economic reasons for carrying out this reaction?

- 4.(a) What is crude oil?
- (b) Why is it described as a fossil fuel?
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