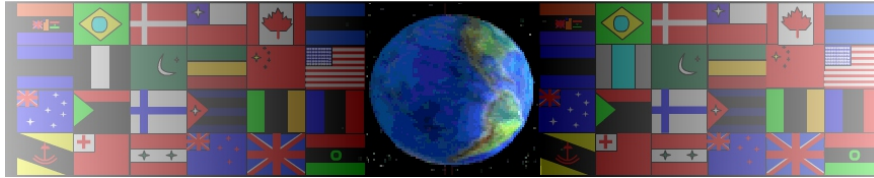


# REVISION CARDS - CRUDE OIL TO PLASTICS

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On behalf of The World Association of Technology Teachers

## W.A.T.T.



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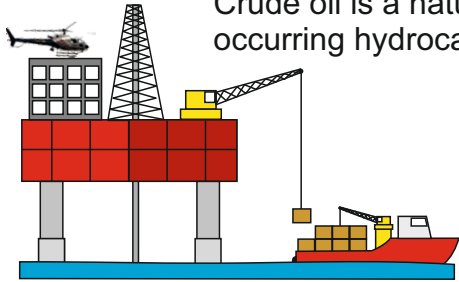
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# REVISION CARDS - CRUDE OIL TO PLASTICS

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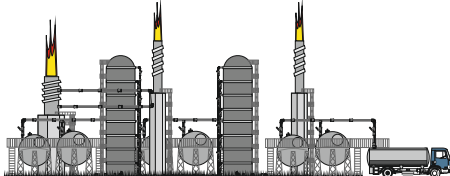
**OIL RIG - CRUDE OIL**

Crude oil is a naturally occurring hydrocarbon.



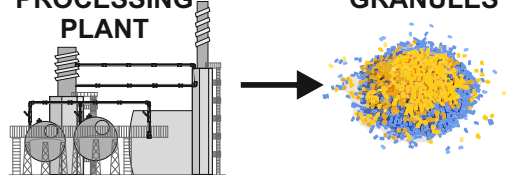
Crude oil is found deep underground. Oil reserves are extracted by oil rigs on land and on the oceans / seas. On land, 'crude oil' is piped directly to refineries. Huge oil tankers often transport crude oil from oil rigs at sea, to refineries. Crude oil is a valuable commodity, as it can be refined (distilled) into fuels, chemicals and processed into plastics. Crude oil is difficult to find and expensive to extract.

**CRUDE OIL REFINERY AND DISTILLATION**




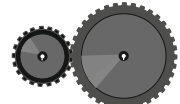




Refineries 'distil' (distillation) crude oil, manufacturing gas, petrol, diesel, heating oils, **naphtha (important for plastics)**, ethylene and polyethylene. Bitumen / asphalt is also produced. Naphtha is processed into 'plastic' granules, in a processing plant.

**NAPHTHA / PLASTICS PROCESSING PLANT** → **PLASTIC GRANULES**



**FACTORY MANUFACTURED PRODUCTS**

Many types of plastic granules are manufactured. They are used in turn, to manufacture a vast range of products.

<b>PVC</b> POLYVINYLCHLORIDE	<b>NYLON</b>
	
<b>POLYESTER</b>	<b>POLYSTYRENE</b>
	
<b>POLYURETHANE FOAM</b>	<b>POLYPROPYLENE</b>
	

1. How is crude oil extracted from underneath the ground and transported to refineries?

3 marks

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2. Why is crude oil a valuable commodity ?

2 marks

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3. What is the name of the process used to convert crude oil, into useful chemicals and fuels ?

1 marks

4. What happens at an oil refinery ? 2 marks

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