

Materials and the Earth

Lesson 7: Review 1

Science

Chemistry - Key Stage 3

Miss Willett



What have you learnt already?

- 1. What is a hydrocarbon?**
- 2. Which is the hottest layer of the earth?**
- 3. Which is the thickest layer of the earth?**



Rock properties

Which am I?! How do you know?

1. Rock one is a rock, because
2. Rock two is a rock, because
3. Rock three is a rock, because
4. Rock four is a rock, because
5. Rock five is a rock, because



Properties of rock

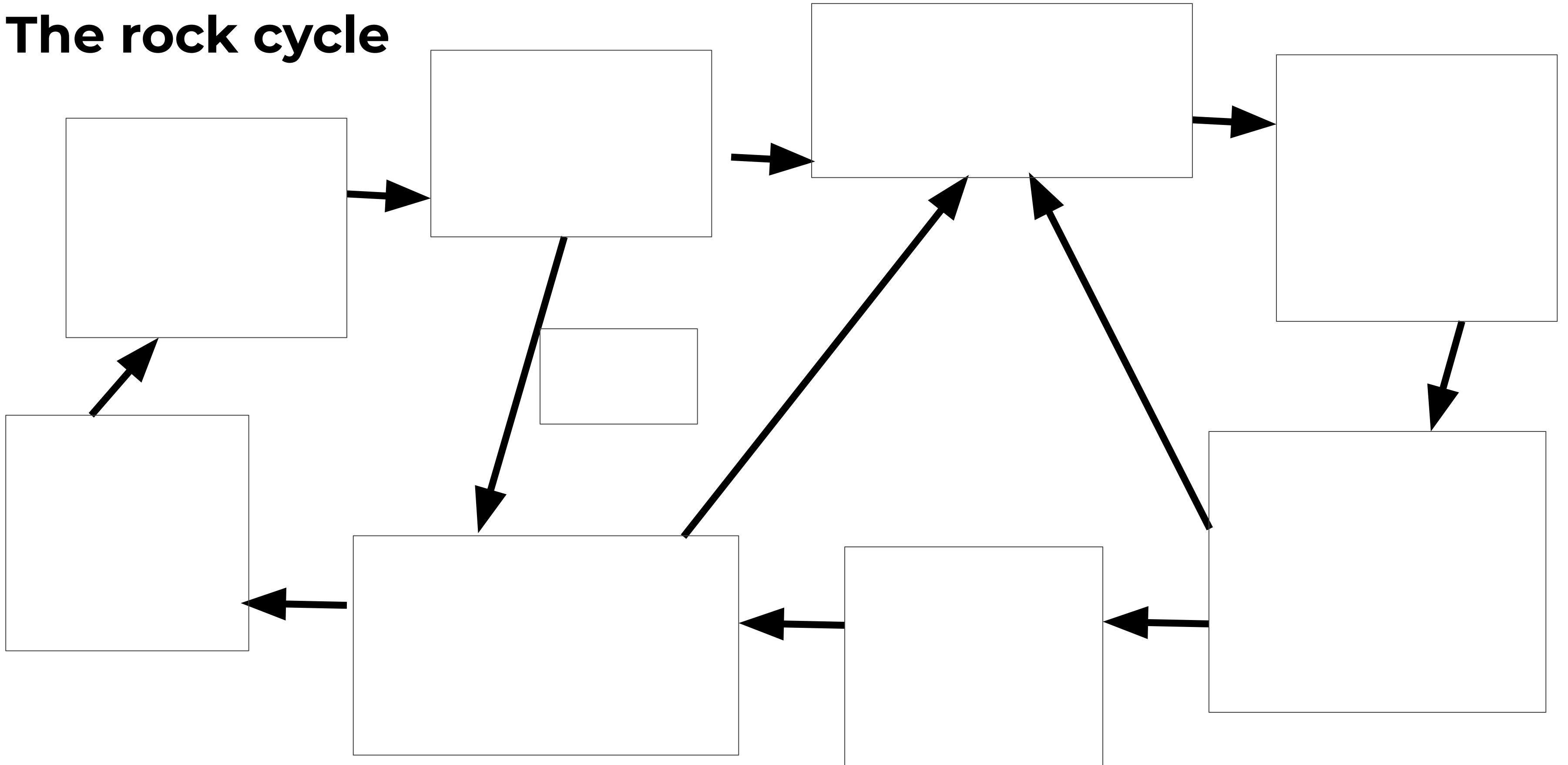
Organise the following into the table:

Strata, crystals, irregular layers, hard (x2!), porous, shiny, fossils, colourful

Igneous	Sedimentary	Metamorphic



The rock cycle



The rock cycle

Tell the story of how magma can become metamorphic rock:

- Magma starts in..
- Then, after..... , it cools to form....
- Weathering...
- The sediments...
- Over millions of years..
- Sedimentary rock can either..
- If it is pushed deeper...
- This turns it into...

STRETCH: Include how volcanic eruption happens, which type of igneous rock you form (intrusive / extrusive), and how fossils may be involved



The rock cycle

Answer space:



Fossils

Match up the sentences

Whole body cast

Preserves evidence of activity

Imprint cast

Preserves soft tissue

Amber

Organism trapped in sediment layers



Crude oil

Fill in the gap!

Fossils undergo heat and _____ to turn into oil

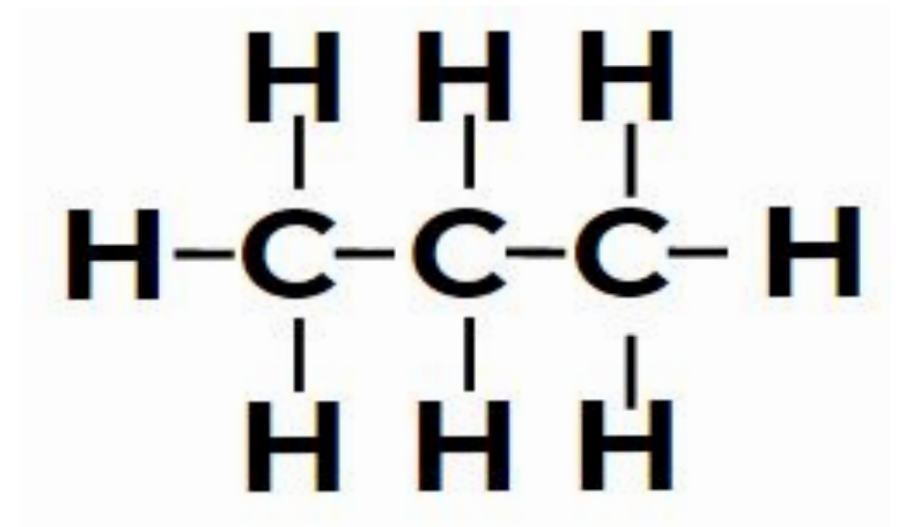
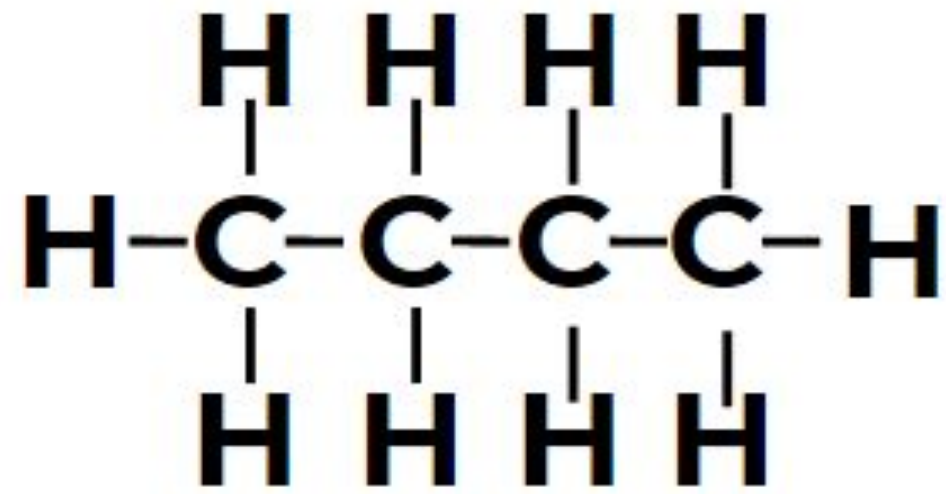
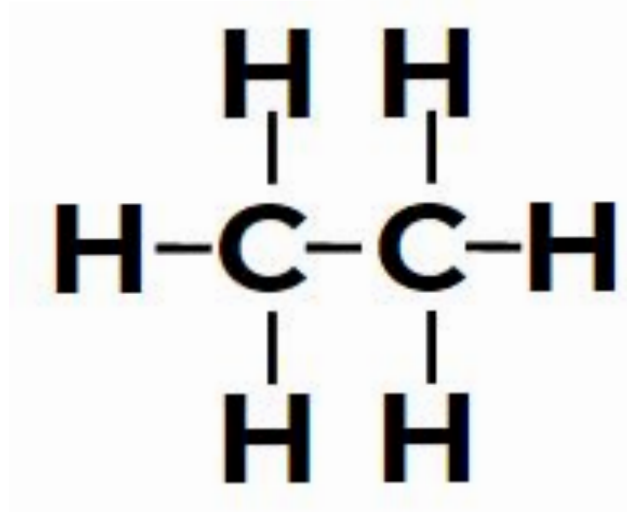
The process takes _____ of years

Hydrocarbons are made of carbon and _____
only



Hydrocarbons

What's the name?



Credit: Miss Willett



Crude oil:

Answer the following questions:

1. Describe how fossils form. (3 marks)
2. State two conditions that are needed to turn fossils into oil.
3. What is a non-renewable resource?
4. What is crude oil made of?
5. Draw a diagram of pentane.
6. How could drilling for oil affect the environment?
7. Suggest one advantage of using crude oil.

HINT: 'pent' = 5

**Pause the video to
complete your task**



Crude oil: Answer space:

1.

2.

3.

4.

5.

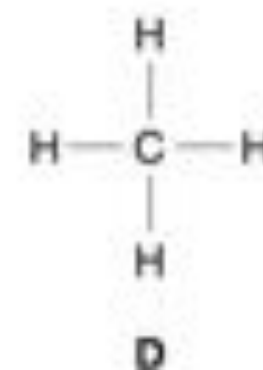
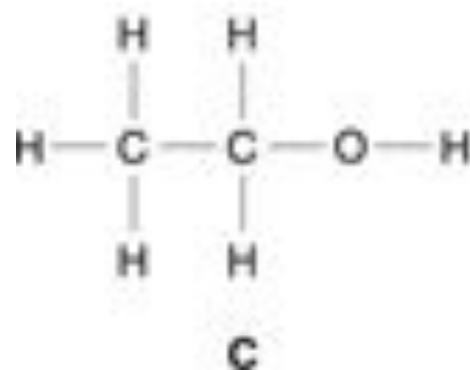
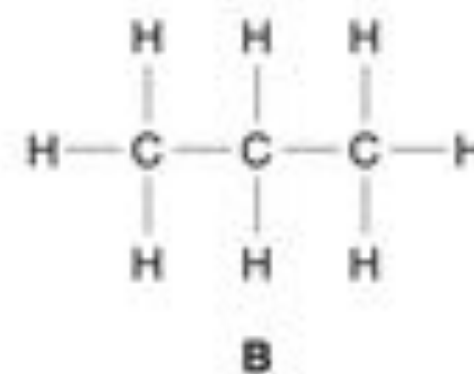
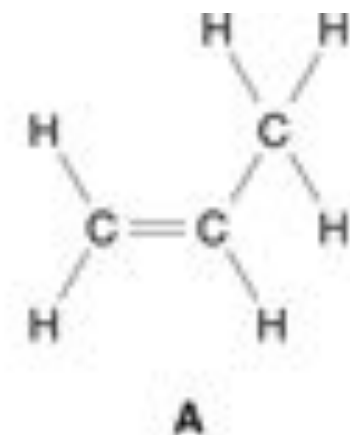
6.

7.



Exam paper application:

1. This question is about carbon compounds. Look at the displayed formulas below.



Which compound is **not** a hydrocarbon?

Explain your answer.

Source: OCR, June 2016; B711/01

Exam paper application:

2. Crude oil is often transported in large ships called oil tankers.

These oil tankers sometimes spill crude oil.

Crude oil spills cause environmental problems.

Write about **two** of these problems.

Source: OCR, June 2016; B711/01



Exam paper application:

3. Crude oil is a **non-renewable** fuel.

What is meant by a non-renewable fuel?

[2]

Source: Jan OCR, 2013; B711/01

