Fossil Fuels versus Biofuels – Energy and CO2 emissions  
**Task 7** Name:

Due: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Comparing fossil fuels and biofuels**

For this task, you will be writing a report on fossil fuels and biofuels. The task will be sat in-class in test conditions, you will be given 50 minutes to complete the task. You are allowed to bring in one A4 page of notes – double-sided – into the assessment to help you with your response. Note that the page of notes **MUST** be hand-written.

For this response, you will be required to:

1. identify the main components (give the name and, where practical, the chemical formula) for a range of the following fossil fuels and biofuels

* coal
* petroleum
* petrodiesel
* natural gas
* biogas
* biodiesel
* bioethanol

1. Describe and compare the processes involved in manufacturing and/or refining a chosen fossil fuel and its analogous biofuel.
2. Compare the energy output of these fuels on a gram and mole basis. For fuels that are a mixture, the mole comparison can be based on the most common component or a typical component of the fuel. Assume complete combustion for the comparison.
3. Compare the carbon dioxide produced for complete combustion of each of the fuels on a gram and mole basis. Again for mixtures, use the most common component or a typical component of the fuel

Your topic for the task will be provided on the day – as such, it is in your best interest to **NOT** pre-write a response and instead use a graphic organiser that neatly arranges the information for you.