

# SUSTAINABILITY

YEAR 6

Autumn 2



# LESSON 4

*What happens when fuels are burnt?*



## Do Now – Retrieval practice

1) What is meant by sustainability?

Sustainability is \_\_\_\_\_

---

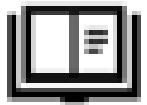
2) How do scientist asses the environmental impact of an item?

\_\_\_\_\_

3) What are the main problems associated with landfill sites?

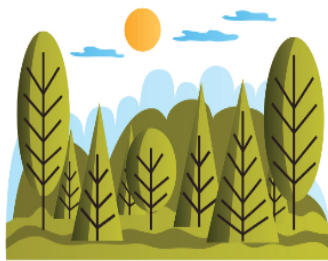
i. \_\_\_\_\_

ii. \_\_\_\_\_



Read the following passage about resources and fuels.

Humans use things found on Earth for their own benefit. For example, humans burn wood in fires in order to keep warm. Wood is an example of a natural resource. A natural resource is a material created through the formation of Earth that can be used for human benefit. Examples of other natural resources are fossil fuels (coal, crude oil and natural gas) and metal ores. Some natural resources can be burnt to release energy. These resources are known as fuels. The energy released when a fuel burns can be used to power cars or generate electricity.



Forest Resources



Crude Oil



Natural Gas



Precious Metals, Minerals, Rocks  
(Including coal)



Use the text above to answer the following questions:

1. What is a natural resource?

---

2. What is a fuel?

---

3. Name the three fossil fuels.

---

4. What are fuels used for?

---

---



**Read the following passage about combustion reactions:**



Energy is released from fuels when they are burnt. When we light a fire we feel warmer, this is because energy is being released when the wood is burnt. The scientific name for burning is combustion. In a combustion reaction a fuel reacts with oxygen to produce carbon dioxide and water and energy is released. This energy can be used to heat water, generate electricity and power cars. The general word equation for a combustion reaction is:

Fuel + Oxygen → Carbon Dioxide + Water

e.g. wood + oxygen → carbon dioxide + water



Use the passage above to answer the following question

1. What is a combustion reaction?

---

---

2. What are combustion reactions used for?

---

---

3. What are the products of all combustion reactions?

---



Write word equations for the combustion of the following fuels:

1. Methane



2. Propane



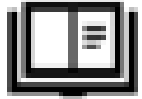
3. Petrol



4. Diesel







**Read the following passage about pollutants.**

When fossil fuels are burnt they produce carbon dioxide. Carbon dioxide is an example of a pollutant. A pollutant is a substance that negatively impacts the environment. Another example of a pollutant is hydrogen sulfide which is also formed when fossil fuels are burnt. Hydrogen sulfide dissolves in rain water to produce acid rain which can be dangerous to humans, animals and plants.





Use the passage above to answer the following question

1. What is a pollutant?

---

---

2. Name two pollutants.

---

---



**Is it better to burn wood or oil if you need heating?**

# SUSTAINABILITY

YEAR 6

AUTUMN 2



Complete  
your learning  
review