

English

Small Island

To be able to fully appreciate the play *Small Island*, it is imperative that we have an understanding of the historical context. Can you please complete a research project on HMT Empire Windrush OR Jim Crow. You can present your findings in any way you wish. You may choose to write out your findings (in your own words) or you can present it as a poster or a mind map. You can work on paper or complete on Microsoft Word. If you are working on Word, please share your work on Teams or print.



Maths

Sparx Maths – Complete the extra Home Learning that has been set.

Science

Read the document and complete the questions on fossil fuels and the greenhouse effect

Geography

Watch the clip on fracking and take notes <https://continuityoak.org.uk/Lessons?r=404>

Spanish

Complete your assignment on languagenut.com. Log in details should be in your planner but they can also be found on Teams in your class group. Start each task by learning the vocabulary and play practice games. Make sure you complete the quiz afterwards for each of the tasks.

Science

Learning Outcomes

- I can name the three fossil fuels
- I can describe how the burning of fossil fuels impacts the environment
- I can explain why we need alternative energy resources to fossil fuels

Tasks

1. Read through the information provided
2. Complete practice questions on the sheet below

Fossil Fuels

Formation of fossil fuels

Crude oil, coal and gas are fossil fuels. They were formed over millions of years, from the remains of dead organisms:

- coal was formed from dead trees and other plant material
- crude oil and gas were formed from dead marine organisms



Coal is a solid fossil fuel

Fossil fuels are non-renewable. This we are using them up faster than they can be replaced - once they have all been used up, they cannot be replaced. Fossil fuels are also finite resources. They are no longer being made or are being made extremely slowly. **It is predicted that we will run out of fossil fuels within the next 40-50 years.**

Fossil fuels are used because they are reliable, convenient to use as thermal power stations are set up to burn them and are a relatively cheap energy resource.

When we burn fossil fuels gases are released which have a negative effect on the environment. **Sulphur dioxide is released which forms acid rain. Carbon dioxide is released, and this is a greenhouse gas.**

The greenhouse effect

Greenhouse gases trap heat and this increases Earth's surface temperature. Greenhouse gases present in the atmosphere include:

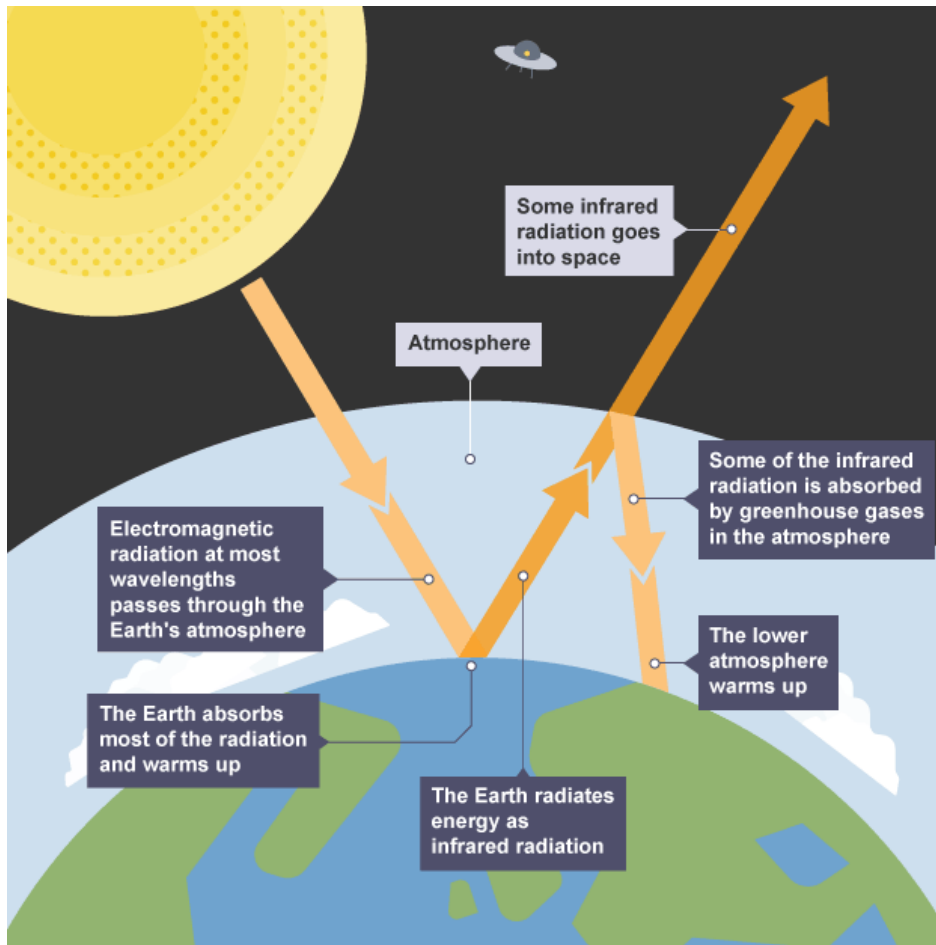
- **water vapour**
- **carbon dioxide**
- **methane**

These greenhouse gases:

1. Absorb heat from the sun and heat radiated from Earth
2. then release energy in all directions, which keeps the Earth warm



The diagram gives more details about this process, called the greenhouse effect.



Questions

1. Name the three fossil fuels (3 marks)
2. State how long it takes fossil fuels to form (1 mark)
3. State what coal is formed from (1 mark)
4. Fossil fuels are non-renewable. Define non-renewable (1 mark)
5. State when it is predicted that fossil fuels will run out (1 mark)
6. List three reasons why we use fossil fuels as an energy resource (3 marks)
7. Explain why sulphur dioxide is bad for the environment (1 mark)
8. Explain how the use of fossil fuels increases carbon dioxide concentration in the atmosphere (1 mark)
9. Carbon dioxide is a greenhouse gas. State the effect greenhouse gases have on the Earth's temperature.
10. Suggest why increasing global temperatures may have a negative effect on wildlife (hint – think polar ice caps) (3 marks)