

Global Warming

The projected global drop in carbon dioxide emissions as a result of the coronavirus pandemic is 5.5% from 2019, which would be the largest ever fall in emissions and far greater than any drops seen during economic recessions or war time.

However even this drop is not enough. According to a number of different studies the global emissions would have to drop by 7.6% every year this decade in order to achieve the target of limiting global warming to 1.5 °C above pre-industrial temperatures.

1. Describe the consequences of global warming if this target is not met.
2. Suggest actions that governments and individuals could take to reduce their carbon dioxide emissions.
3. Suggest why there was such a significant drop in emissions during the pandemic.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on the right side, suggesting it's resting on a surface.



Name _____ Date _____



Science
Mastery

B3.2.6 - Teacher Guidance

Purpose of this activity

This task presents an opportunity for pupils to

- write an extended response, demonstrating the depth of their understanding of the current topic.
- apply their knowledge in an unfamiliar context.

Pupils should be encouraged to think about the structure of their response. It may be beneficial for pupils to plan their answer in pairs or groups by drawing mind maps or flow charts. Pupils should also be mindful of spelling and grammar in their writing.

Scaffolding this Task

- Break up the answer into some simple steps on the board.
- Underline and define the words in the question which may lead to confusion
- Supply sentence starters or writing frames to help students structure their response.
- Model part of an answer on the board.
- Give students words that you would like them to include in their answer

Running this Activity

This activity can be run in a number of ways, including;

- Have students plan out the answer together in small groups. They can sketch out a plan for the answer in the form of a mind map or flow chart. They can then go away and write their own response individually or in pairs.
- As an independent formative assessment task or activity
- As a paired activity

Assessing this question

Credit can be awarded for any of the statements below (or words to this effect) and any reasonable suggestions.

Part 1

- Global temperatures would have increased beyond 1.5°C
- This would result in melting polar ice caps, rising sea levels, extreme weather patterns, flooding and loss of habitats

Give partial credit for an annotated diagram that shows valid points.

Part 2

- Reduce waste by recycling
- Reduce carbon dioxide emissions by using fewer fossil fuels (e.g. travelling less by car and plane) and walking/cycling more
- Using renewable resources – wind/solar power
- Ensure appliances are energy efficient

Part 3

- there was a huge decrease in air and car travel because of lockdowns and travel bans
- decrease in use of resources/energy in schools and offices
- any other relevant points