



Name: \_\_\_\_\_

Class: \_\_\_\_\_

## Student worksheet

### 5.4 Human activity affects the carbon cycle

Pages 124–125

## Human impacts on the carbon cycle

1 How do humans use the geological carbon cycle to their advantage?

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2 What is the impact of this on the environment?

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3 List two major carbon sinks that have the greatest impact on the level of atmospheric carbon dioxide.

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4 Other than carbon sinks, where else can carbon be stored?

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5 What is the pedosphere?

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- 6 How does the pedosphere contribute to the level of carbon dioxide in the atmosphere?

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- 7 Draw a simplified version of the carbon cycle below. You must include the ocean, atmosphere, carbon dioxide, plant material, crude oil, burning of plant material, burning of fossil fuels and aquatic organisms. You must also include labels of the features involved with the geological carbon cycle and the biological/physical carbon cycle.

### Extend your understanding

Nuclear power plants were developed as a solution to climate change.

- 8 Does a nuclear power plant release carbon as waste, and therefore impact the carbon cycle?

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9 How is energy generated in a nuclear power plant? Use a chemical equation to support your answer.

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10 What waste is produced from this process?

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11 What are the disadvantages of nuclear power plants?

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