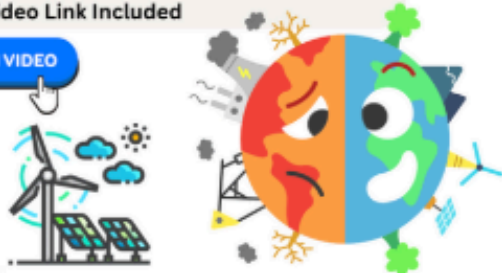


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Crash Course CLIMATE AND ENERGY #5: Can We Keep Warm and Stay Cool Without Fossil Fuels?

Name: _____ Date: _____

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1. Heating and cooling homes and commercial buildings contribute to about _____ of global carbon dioxide emissions each year.
2. The main component of natural gas is _____, a potent greenhouse gas.
3. The technique used to extract natural gas from shale rock using high-pressure fluid is called _____.
4. Methane traps _____ times more heat than carbon dioxide over a 20-year period.
5. In many low-income countries, people rely on solid fuels like wood or dung, collectively known as _____, for heating and cooking.
6. Tiny soot particles called _____ are dangerous air pollutants that can lodge in the lungs.
7. Mongolia's capital, Ulaanbaatar, relies heavily on _____ for both heating and electricity generation.
8. One solution to reduce emissions from heating and cooling is using _____, which can both heat and cool a home.
9. Heat pumps use _____ to absorb and transfer heat.
10. The _____ refers to the cost difference between clean and fossil-fuel-based energy sources.
11. Fuels made from renewable organic waste and agricultural byproducts are called _____.
12. _____ are synthetic fuels made from captured carbon dioxide and hydrogen from water.
13. Air conditioners often release _____, powerful greenhouse gases used as refrigerants.
14. Governments can help reduce emissions by raising the _____ efficiency standards for appliances.
15. Achieving carbon-free heating and cooling must also address global _____ and access to clean technology.

Crash Course CLIMATE AND ENERGY #5: Can We Keep Warm and Stay Cool Without Fossil Fuels? KEY

1. Heating and cooling homes and commercial buildings contribute to about 7% of global carbon dioxide emissions each year.
2. The main component of natural gas is **methane**, a potent greenhouse gas.
3. The technique used to extract natural gas from shale rock using high-pressure fluid is called **fracking**.
4. Methane traps **80** times more heat than carbon dioxide over a 20-year period.
5. In many low-income countries, people rely on **solid fuels** like wood or dung, collectively known as **biomass**, for heating and cooking.
6. Tiny soot particles called **PM2.5** are dangerous air pollutants that can lodge in the lungs.
7. Mongolia's capital, Ulaanbaatar, relies heavily on **coal** for both heating and electricity generation.
8. One solution to reduce emissions from heating and cooling is using **heat pumps**, which can both heat and cool a home.
9. Heat pumps use **refrigerants** to absorb and transfer heat.
10. The **Green Premium** refers to the cost difference between clean and fossil-fuel-based energy sources.
11. Fuels made from renewable organic waste and agricultural byproducts are called **biofuels**.
12. **Electrofuels** are synthetic fuels made from captured carbon dioxide and hydrogen from water.
13. Air conditioners often release **hydrofluorocarbons**, powerful greenhouse gases used as refrigerants.
14. Governments can help reduce emissions by raising the **minimum efficiency** standards for appliances.
15. Achieving carbon-free heating and cooling must also address global **equity** and access to clean technology.

15 Questions

Answer Key Included

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