Cooling Rules Change

How laws and treaties changed U.S. environmental responsibilities

E.P.2.1.C "Analyze the impact of constitutions, laws, treaties, and international agreements, by comparing how various governmental powers and responsibilities have changed over time."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each change in what the EPA can do, circle each U.S. law or international treaty named in the passage, and number the events in time order to track how government responsibilities changed.

From Refrigerators to International Rules

1. Imagine a leaking refrigerator in 1970. Its coolant might contain chemicals that later proved harmful to Earth's ozone layer. At that time, the federal Clean Air Act was becoming a stronger tool for controlling air pollution. Congress's 1970 amendments directed the new Environmental Protection Agency (EPA) to set national limits for certain common air pollutants, while states wrote plans to meet those limits. The federal government gained a larger role, but states still carried out much of the work. Those rules did not yet require a nationwide phaseout of the refrigerator chemicals called chlorofluorocarbons (CFCs).

2. In 1987, the United States signed the Montreal Protocol, a treaty in which countries agreed to control substances that damage the ozone layer. After the Senate gave its consent, the United States ratified the treaty in 1988. It committed the nation to reduce production and consumption of CFCs. A treaty commitment did not, by itself, give the EPA every tool it needed to enforce a phaseout at home. Congress's 1990 Clean Air Act amendments gave the EPA authority to carry out a domestic phaseout. Compared with 1970, federal duties now included meeting a specific international commitment.

3. The story did not stop with ozone. Hydrofluorocarbons (HFCs) replaced many CFCs in cooling equipment. HFCs do not destroy ozone, but they are powerful greenhouse gases. In 2016, countries adopted the Kigali Amendment to the Montreal Protocol, committing parties to phase down HFC production and consumption. Congress's 2020 American Innovation and Manufacturing Act gave the EPA authority to phase down HFCs in the United States. The Senate consented to the Kigali Amendment in 2022, and the United States ratified it that year. This time, domestic law came before U.S. ratification of the international commitment.

2 ANSWER WITH EVIDENCE

Use the passage

1. How did the EPA's responsibility change from the 1970 Clean Air Act amendments to the 1990 amendments?

2. What did the Montreal Protocol require of the United States, and what different role did the 1990 law play?

3. Compare the order of U.S. ratification and domestic lawmaking for the CFC and HFC phaseouts.

4. How did the environmental purpose of the EPA's phaseout authority change between the 1990 and 2020 laws?

3 YOUR TURN

Your own words

Suppose a newly developed coolant traps heat but does not damage ozone. In four or five sentences, propose a U.S. law and an international treaty to address it, compare the resulting EPA duties with those in 1970, and explain who would need to act.

ANSWER KEY

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PART 1 · READ AND MARK

Underline each change in what the EPA can do, circle each U.S. law or international treaty named in the passage, and number the events in time order to track how government responsibilities changed. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How did the EPA's responsibility change from the 1970 Clean Air Act amendments to the 1990 amendments?	**In 1970, the EPA set national limits for certain common pollutants while states planned how to meet them. The 1990 amendments also gave the EPA authority to carry out a domestic CFC phaseout.**
2	What did the Montreal Protocol require of the United States, and what different role did the 1990 law play?	**The treaty committed the United States to reduce CFC production and consumption. The 1990 law gave the EPA authority to carry out the phaseout at home.**
3	Compare the order of U.S. ratification and domestic lawmaking for the CFC and HFC phaseouts.	**The United States ratified the Montreal Protocol in 1988, before Congress passed the 1990 CFC law. Congress passed the HFC law in 2020, before the United States ratified the Kigali Amendment in 2022.**
4	How did the environmental purpose of the EPA's phaseout authority change between the 1990 and 2020 laws?	**The 1990 authority addressed CFCs, which damage the ozone layer. The 2020 authority addressed HFCs, which do not destroy ozone but are powerful greenhouse gases.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Congress could pass a law giving the EPA authority to limit production of the new coolant. Unlike its 1970 role of setting national limits for certain common air pollutants, the EPA would now oversee a phaseout of this specific coolant. The president could negotiate a treaty in which countries agree to reduce its production. The Senate would need to consent before the United States ratified that treaty. The law would give the EPA a domestic duty, while the treaty would add an international responsibility.

Accept proposals that distinguish a domestic grant of EPA authority from an international commitment. Students should identify Congress's role in passing a law and the Senate's consent before U.S. ratification of a treaty.