

Fun Facts: Earth Day - April 22

TEACHING GUIDE



About Fun Facts

Fun Facts are student-friendly handouts that tie statistics from the Census Bureau to holidays, anniversaries, and other observances. These fact sheets, although originally created for teachers to use in classrooms, are easily adapted for use at home to keep kids entertained and learning. They are designed to be used at varying grade levels and across different subjects.

Using Earth Day Fun Facts in the Classroom or at Home

Review the different types of renewable energy with students.

Renewable energy resources freely exist in nature, never run out, and do not pollute the environment. By contrast, nonrenewable energy—which includes coal, propane, petroleum, and natural gas—formed millions of years ago and will run out someday. Types of renewable energy include:

- **Biomass energy.** Energy generated from animals and plants, such as wood, dried vegetation, crop residue, and even garbage. When biomass is burned, the energy is released as heat.
- **Geothermal energy.** Energy generated from heat in the ground—for example, from the hot rock found a few miles beneath the Earth's surface or from the extremely hot molten rock (magma) found even deeper underground.
- **Hydroelectric energy.** Energy extracted from flowing water, often in a river, that spins the blades of a turbine connected to a generator.
- **Wind energy.** Energy extracted from moving air (wind) that turns the blades of a wind turbine connected to a generator.
- **Solar energy.** Energy generated from the sun, often through solar panels, made of materials that can be found in computer chips. When sunlight hits the panels, it knocks electrons loose from their atoms to generate electricity.
- **Other electric power.** Energy generated from fossil fuel, nuclear, and solid waste combustors.



Give students time to read and digest the information in the Earth Day Fun Facts handout. Below is a list of ideas for using the fact sheet at all grade levels:

Elementary School Level

Create a collage. Have students cut out pictures from magazines (or draw their own images) that illustrate examples of why they love the Earth, glue them to construction paper or poster board, and explain what their collage represents to the class or an adult at home. For example, a student can add a picture of the sun to their collage and say, "I love the Earth because it gives us a way to create energy from the sun." Students can use examples from the Fun Facts handout or their own examples.

Helping hands. Ask students to trace their hand and cut out their drawing. On each finger, students would write one example of how they will help the Earth, save energy, and/or reduce pollution. Encourage students to come up with at least one example based on something they learned from our Fun Facts. Students can decorate their paper hands, and share with the class or an adult at home.

Middle School Level

Persuasive writing. Have students review the percentages of the American workforce that biked and walked to work in the handout—and start a discussion by asking them how they typically get to school, how long it usually takes, and why they use that method of travel. Then ask students to write pros and cons of different modes of transportation they could take to get to school, keeping in mind the impact on the environment. Students can consider what changes in their community would make biking and walking more popular, and (with help from teachers or an adult at home) they can write a pitch to the local city council pushing for those changes.

Quickwrite. Ask students to answer the following prompts in a 5-minute Quickwrite response, during which students typically write freely about a topic: What do the numbers in the "Feelin' Hot, Hot, Hot" section tell you about the way Americans heat their homes, and why do you think certain methods are more common than others? How many homes are heated by renewable energy resources versus nonrenewable energy resources? Do you know how your house is heated, and if so, how?

High School Level

Discussion. Using renewable energy 100 percent of the time comes with positives and negatives. Have students brainstorm using a T-chart (pros on one side and the cons on the other) and discuss their ideas as a class or with an adult at home. Positive examples include: It reduces our carbon footprint; it never runs out; it improves public health; and the industry is more labor-intensive, which creates jobs. Negative examples include: It often relies on the weather, which changes from day to day; it's more expensive to produce than nonrenewable energy; and structures to harness renewable energy cannot be built everywhere.

Social media showcase. Students can write two social media posts commemorating Earth Day. Ask students to create one post that includes information from the Fun Facts handout and one post of their own design. If students have social media accounts and would like to actually share their posts, encourage them to do so (using the popular hashtag #earthday).