

## Tips on How to Present Climate Change to Elementary and Secondary Students

Some adults worry that the content is too scary or complicated for young minds to comprehend. Their uncertainty is understandable – headlines about warming temperatures, rising seas, and stronger storms can sound daunting to even adults let alone the littlest of learners. But understanding the mechanics of climate change and why it is an important issue to tackle does not have to be disheartening. Armed with the right tools and approach, elementary students can become not only aware of the challenges of a changing climate but also feel empowered to take positive action, both locally and globally, in order to combat one of the most pressing global issues of their time.



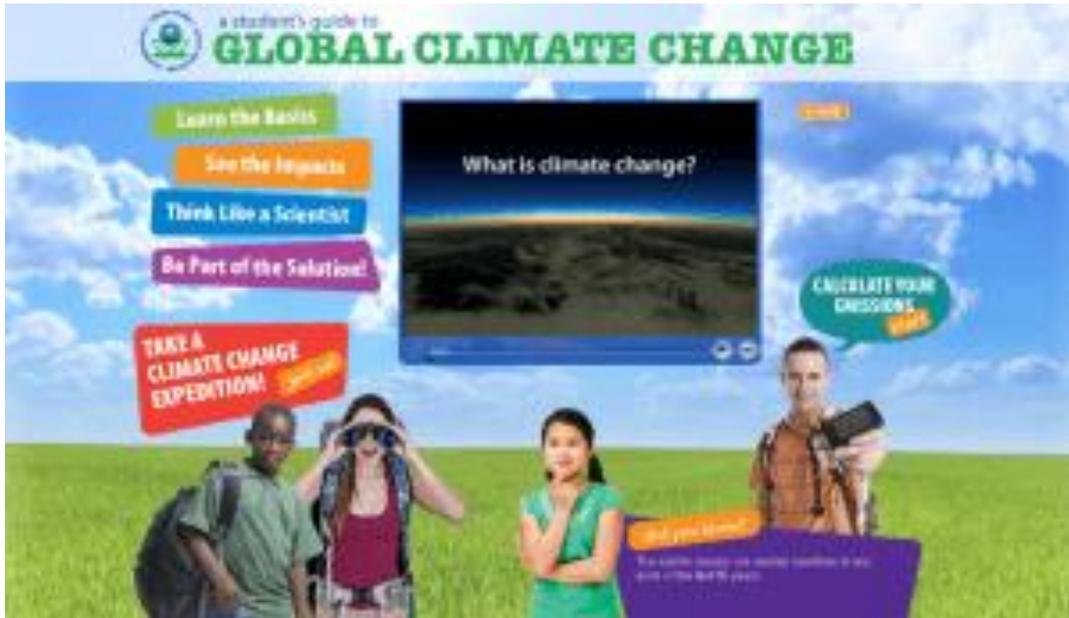
### 1. INSPIRE ACTION AND TELL POSITIVE STORIES

Highlighting the positive impact that young people can have in the fight against climate change is an important ingredient in maintaining motivation. As much as possible, emphasize the contributions students can make in their everyday lives (recycle! use less energy! plant trees!) and share stories of other young children who have made a difference. Such as Felix Finkbeiner, who founded [Plant for the Planet](#) when he was 9 years old and has now helped plant over a billion trees. More stories like Felix's can be found at [Young Voices for the Planet](#).

### 2. INTEGRATE IT WITH WHAT YOU ARE ALREADY TEACHING

There are curriculum standards that connect with climate change. The mechanics of climate change can be discussed when learning about the Earth's systems (interactions between the atmosphere, geosphere, hydrosphere, and biosphere) while the impacts of climate change fit nicely with standards related to human impacts on Earth's systems (5-ESS3.C) and species adaptation (3-LS4.C), just to name a couple.

### 3. STICK TO FACTS FROM TRUSTED SOURCES



For older elementary students, looking at trusted data can be a helpful approach when teaching complex issues. Sites like the [National Oceanic and Atmospheric Administration](#) (NOAA), [NASA](#), and the [EPA](#) are great starting points to gather objective information about various climate indicators including temperature, ice melt, and CO2 emissions. While students may need scaffolding to interpret the information, they will begin to learn what trusted sources look like and can practice interpreting data to form conclusions. There are also many “kid-focused” sites, like [Climate Kids](#) (from NASA) that can help establish a base knowledge of climate change before jumping into the data.

### SHOW A MOVIE

Susan Fisher, a seventh-grade science teacher at South Woods Middle School in Syosset, N.Y., showed her students the 2016 documentary *Before the Flood*, featuring Leonardo DiCaprio journeying to five continents and the Arctic to see the effects of climate change. "It is our intention to make our students engaged citizens," Fisher says.

*Before the Flood* has [an action page](#) and an associated curriculum. Common Sense Media has a list of [climate change-related movies](#) for all ages.

The 2006 film *An Inconvenient Truth* and [its 2017 sequel](#), *An Inconvenient Sequel: Truth To Power*, have curricular materials created in partnership with the National Wildlife Federation.

### 4. MAKE IT LOCAL

Young elementary students are concrete thinkers and there's no better way to establish a foundation of climate stewardship than to learn about a local environmental issue. Understanding that humans have impacts on the natural world and that wildlife is impacted by changing ecosystems is a must in grades K-2. Spending time exploring local wildlife/habitats and learning about any current risks will establish the ground-work for more abstract climate-related thinking later on.

## 5. USE HANDS ON ACTIVITIES: LABS!

Hands-on lesson plans make learning about climate related issues engaging and fun for elementary learners. In the lesson [Energy Imagery](#), students compare their energy use with that of a Native American in the past and then determine easy ways to conserve energy in their homes and schools in order to lessen their impacts on the environment. And in the lesson [Catching Pollution](#), students use charcoal briquettes to visualize how much CO<sub>2</sub> is being emitted into the atmosphere per driver every day.

Lab activities can be one of the most effective ways to show children how global warming works on an accessible scale.

Ellie Schaffer is a sixth-grader at Alice Deal Middle School in Washington, D.C. In science class, she has done simulations on greenhouse effects, using plastic wrap to trap the sun's heat. And she has used charcoal to see how black carbon from air pollution can speed the melting of ice.

On the [Earth Science Week](#) website, there's a list of activities and lesson plans aligned with the Next Generation Science Standards. They range from simple to elaborate.

## START OR WORK IN A SCHOOL GARDEN

The garden is their lab and the students 'live and learn' soil carbon sequestration and regenerative agriculture. Our school's compost bin is evidence that alternatives exist to methane-producing landfills. In looking for more solutions to reduce methane, students debate food reuse practices around the world."

Check out [ThePermacultureStudent.com](http://ThePermacultureStudent.com) for resources on building