



# *Climate Science & Pollinators*

CLIMATE KIDS TRAVELING TRUNK

## objective

The Climate Science and Pollinators Traveling Trunks is designed to help students gain an understanding of who pollinators are, their important role in our lives, and how a changing climate and increased human activity will affect them and our food production. The hands-on science activities, storytelling, and art materials in this program specifically target K-8th grade students based on Next Generation Science Standards. This module will bring the importance of our local pollinators to life by exploring the impacts of climate change on pollinators, how human activities impact these species, and how students can help protect these animals.

# how to use this resource

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The Climate Science & Pollinator Traveling Trunk is structured to be taught in four main parts: (1) Climate Change Primer (2) Regional Impacts Module, (3) Pollinator Module, and (4) Tribal Perspectives. (1) The Climate Change Primer module provides students with the latest climate science information, such as the causes of climate change and how will it impact our region of Southern California. If you have already reviewed climate change causes and impacts in your classroom, the Primer module is optional. (2) The Regional Impacts Module assesses change impact data taken from the San Diego Ecosystems Assessment and explores climate change impacts to four different endangered species in south coast California. (3) The Pollinator module ties the local impacts of climate change to our natural ecosystems. (4) Climate Kids-Tribes is a collaborative partnership with local Tribal Nations across the Southwestern United States. The Tribal Perspectives portion of this trunk provides cultural resources and curriculum for both Tribal and non-Tribal educators.

Each module includes background information, lesson plans, PowerPoints, activities, and materials structured into 3 – 1 hour lessons; hands-on-science, storytelling, and art. A USB with the PowerPoint, worksheets, storybooks, and art examples are included in the trunk. Each module includes “Next Steps” activities which are designed for teachers to use once the trunk returns to the Climate Science Alliance, as it is our hope that the learning will continue, whether on a field trip, in your own backyard, or elsewhere.

## what's inside

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### ***Climate Change Primer:***

- Heat Trapping Blanket Demonstration (Earth and Blanket)
- Climate Kids “10 Things” Posters (English and Spanish)
- Greenhouse Gas Game
- Carbon Cycle Game

### ***Regional Impacts Module:***

- San Diego Ecosystems Assessment
- San Diego Wildlife, Climate Change, and You! Pocket Guide
- Regional Impacts Game Cards
- “10 Things” for Wildlife Poster

### ***Hands-on Science:***

- Monarch Butterfly Life Cycle Poster
- Monarch Butterfly Life Cycle Models (4)
- Bee Poster
- Parts of the Flower Poster (2)
- Pollinator's Paradise Activity Book
- Magnifying Glasses (20)
- Field Guides
  - Bees and Other Pollinators
  - Garden Bugs of California
  - Park and Garden Birds of S. California

### ***Storytelling Books:***

- Climate Kids Coloring Book
- The Reason for a Flower
- Climate Kids- Pacific Beach Elementary written by Climate Kids in San Diego
- Flowers are Calling
- What if There Were No Bees?
- Buried Sunlight
- The Problem of the Hot World
- The Wonderous Workings of Planet Earth
- Here Today, Gone Tomorrow

### ***Art Ideas:***

- Caterpillar/Butterfly Craft Examples
- Pollinator Rubbing Plates and Postcard Examples

### ***Tribal Perspectives:***

- Tribal Climate Educational Repository
- Tribal Perspectives Children's Books
- Kumeyaay Curriculum and Teacher Guide

### ***Activities, Resources & Worksheets:***

- Educator Curriculum Binder and USB

### ***Beyond the Classroom Activities:***

- Field Trip Opportunities
- Class Projects Ideas
- Climate Kids Ambassador Information
- Volunteer Opportunities

# what you will need to provide

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- Live Insects (1-3 Types of Critters; Ladybugs, worms, butterflies) – [www.earthsbirthdaystore.org](http://www.earthsbirthdaystore.org) or local garden store- these can also be found on a hike in the school yard
- Clipboards (1 Per Student) – Dollar Tree
- Crayons
- Toilet Paper Rolls and Pipe cleaners for Art Project
- Copies of worksheets
- Chairs
- 3x5 Cards
- String or Tape
- Food items (optional)

## evaluation

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- See *Evaluations* tab in curriculum for trunk evaluations.
- Please copy the master versions of the pre and post evaluation and distribute to your students.
- Please return these evaluations with your trunk.

**Questions? Photos to Share? Contact us at [info@climatekids.org](mailto:info@climatekids.org)**

### Check Out Agreement

By checking out this Climate Kids Traveling Trunk, the trunk holder is responsible to return all items in the trunk in good condition. If any items listed in the trunk inventory are misplaced or ruined, the trunk holder is responsible for the fees associated with the items.

