

# *Climate Science &* **POLLINATORS**



climate kids  
traveling trunk



The Climate Science & Pollinators Traveling Trunk contains the resources and lessons needed for educators to help students gain a better understanding of pollinators, the important role they play in our lives, how they will be affected by a changing climate and increased human activity. The hands-on science activities, storytelling, and art materials in this trunk specifically target students from lower Elementary through Middle School based on Next Generation Science Standards, and can be adapted for most K-12 classroom settings and grade compositions. Using real data that is regionally-specific, the activities in this trunk will bring to life pollinators and their important biological role, help students investigate how pollinators contribute to the food we eat everyday, and help them understand the impacts of phenological mismatch and other stressors caused by climate change. Most importantly, students will work to develop their own solutions to help reduce the impacts of climate change in their communities and help protect the Earth and its inhabitants.

## overview

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**Grade Level:** Lower Elementary, Upper Elementary, Middle School

**Subject Areas:** Science, Fine Arts, Language Arts

**Duration:**

- Preparation time: Part I (Science): 25 minutes; Part II (Art): 25 minutes; Part III (Storytelling): 15 minutes
- Activity time: Part I (Science): 1 hour; Part II (Art): 1 hour; Part III (Storytelling): 1 hour

**Setting:** Classroom, Field Trip Site (reach out to [info@climatesciencealliance](mailto:info@climatesciencealliance) for our list of recommended field trips!)

**Vocabulary:** Climate, Weather, Precipitation, Climate Change, Fossil Fuels, Greenhouse Gases, Carbon Dioxide, Ecosystem, Food Web, Pollinators, Nectar, Pollen, Phenology, Phenological Mismatch

**Essential Question:** Why are pollinators important and how will they be affected by increased human activities and climate change impacts?

**Summary:** While participating in the Climate Kids activities of art, science, and storytelling, students will gain an understanding of what pollinators are, their important role in our lives, and how they will be affected by a changing climate and increased human activity.

**Objectives:**

Students will:

- Learn about pollinators and their important biological role
- Understand how pollinators contribute to the food we eat everyday
- Analyze pollinator specimens (preserved or live) in class and/or outdoors
- Explore the impacts of climate change and increased human activities on pollinators
- Develop solutions to help pollinators to adapt to increased human activities
- Create and design artwork to portray impacts on or solutions for pollinator resilience to climate change and human activities

## what's inside

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***Climate Change Primer:***

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

***Pollinator Science Module:***

- Be a Friend to Pollinators Guide Books
- Mac's Field Guide - Birds
- Mac's Field Guide - Bugs
- Pollinator Field Guide
- Magnifying Glasses
- Pollinator Posters
- Pollinator Craft Stick Puppets
- Pollinator Finger Puppets

***Storytelling Books:***

- Earth's Fever
- Fever on the Land
- Here Now, Gone Tomorrow
- The Reason for a Flower

- Every Seed Counts
- Oh, Look! A Butterfly!

***Art Ideas:***

- Craft Examples
- Climate Kids Coloring Book

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

- Teacher Curriculum Binder
- USB with powerpoint

***Tribal Perspectives:***

- Tribal Climate Educational Repository
- Tempalpakh: Cahuilla Indian Knowledge and Usage of Plants
- Indians of the Oaks
- My Ancestor's Village
- One Day at Batiquitos Lagoon
- Nature Adventures!
- Kumeyaay Ethnobotany
- Medicinal Plants Used by Native American Tribes in Southern California

***Regional Impacts:***

- San Diego Ecosystems Assessment
- Pocket Guide
- Regional Impacts Game Cards
- 10 Things for Wildlife Poster