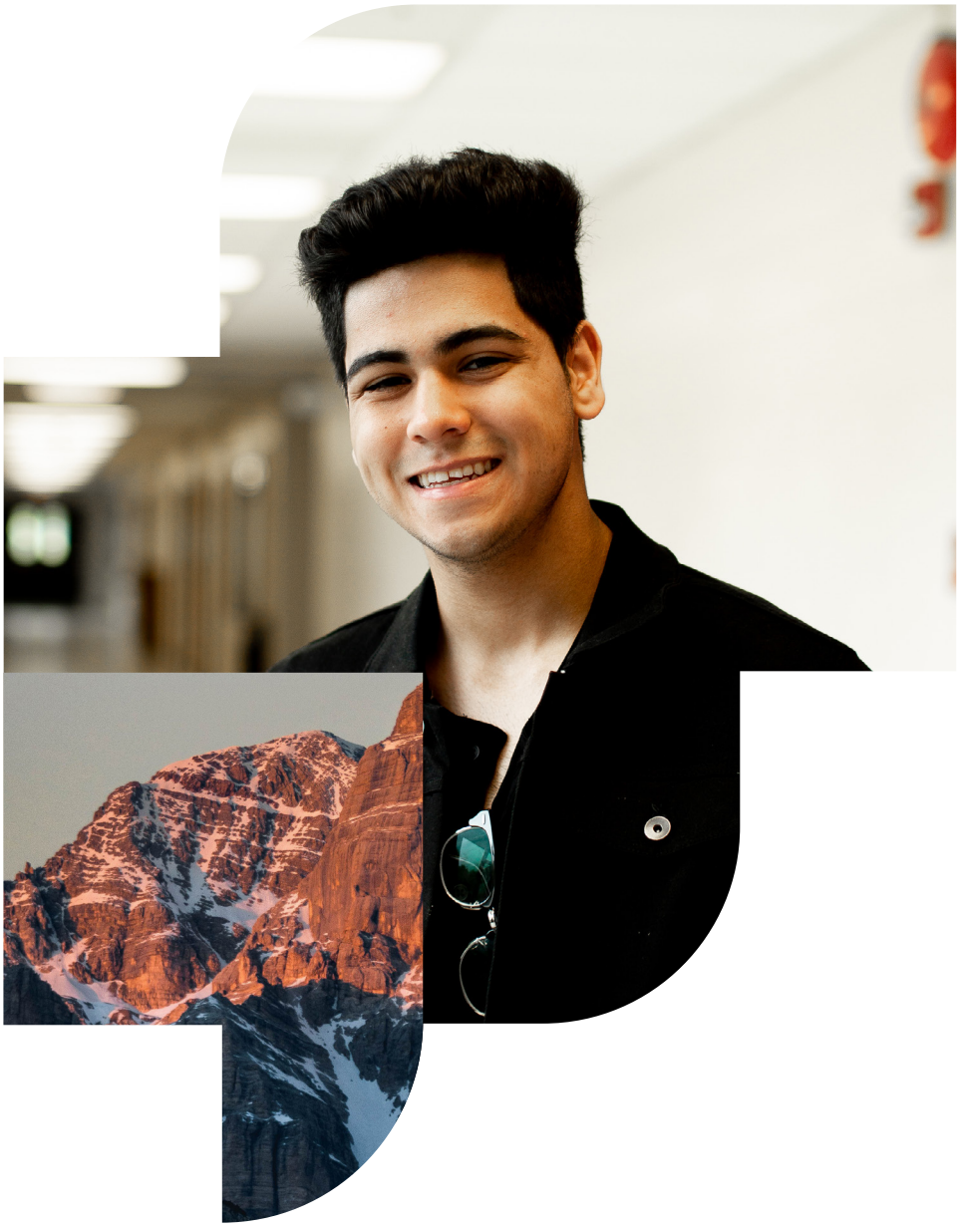
Protect Our Planet

SUPPLEMENTAL LEARNING RESOURCES



students REBUILD | CREATIVE VISIONS

Supplemental Learning Resources for Learners Ages 14+

Protect Our Planet

The air, land, and water around us are changing — and young people are noticing. They're asking questions, making observations, and trying to understand what these changes mean for their world. But knowing what to do with that awareness can be harder. Protect Our Planet, this year's Students Rebuild project, invites young people ages 5–25 to explore the air, land, and water around them and use creativity to share their stories and ideas for a healthier planet.

Through art, writing, performance, photography, digital media, or STEM, students will explore, create, and share. Together, their creativity supports organizations worldwide caring for the air, land, and water we all depend on.

About This Resource

As you engage learners ages 14+ in the Protect Our Planet Project, check out these curated resources to support their exploration of the air, land, and water around them! As you know the needs of your youth best, please use your own judgment in selecting and adapting these resources to fit what will work best for your group of learners.

All Elements

Age	Resources	Description
11+	Stanford Climate Change Resource	This high school curriculum helps students understand climate activity, weather, the atmosphere, and climate change debates as well as energy balance and physical systems.
14+	The Nature Lab by The Nature Conservancy	Interactive nature-based lesson plans for high school age students, provided by the Nature Conservancy.
11+	Climate Champions	The curriculum from UC San Diego contains information to teach students about land warming, wildfires, extreme water, oceanic warming, tree ecosystems and climate data.
11+	Climate Change Resources for Educators and Students | US EPA	In this resource, teachers can find a variety of materials from EPA curriculums (NASA, American Museum of Natural History, etc.) and federal resources on climate change that focus on educating middle and high school students.
11+	TED-Ed Our Changing Climate	Our Changing Climate is a series that helps break down the science behind climate change, our biggest obstacles to avoiding a climate disaster, and how to overcome them.
8+	Climate Change - NASA Science	NASA provides resources for students and educators related to global climate change, including NASA specific curriculum.

Air

Age	Resources	Description
5+	Learning and Teaching about the Environment | US Environmental Protection Agency	An array of environmental and science based lesson plans, activities and ideas below from EPA, other federal agencies and external organizations. Includes classroom resources and project ideas for teachers, as well as homework help on environmental topics for students.
11+	Greta Thunberg: Save the World | TEDxStockholm Bandi Guan: Climate change - from one kid to another | TED Talk Samadrita B: Children as leaders and torch-bearers | TED Talk	Ted Talks: Voices of youth speaking to one another about the climate crisis.
14+	Air Quality and Energy Choice STEM Activities for Educators | US EPA	These hands-on activities were developed by EPA researchers for teachers and others to use in the classroom and other educational settings to teach students about air quality and climate change.

Land

Age	Resources	Description
11+	Earth School - The information and inspiration we need to get | TED-Ed	This resource curates content and supporting lesson materials for students and educators, explaining the problems we need to tackle, the solutions we should explore and the exciting initiatives already making a difference for our planet.
14+	Recording The Rainforest	In this video, students will explore a compelling question: How can we use science and acoustic technology to care for the land and protect the plants and animals in one of the world's most biodiverse regions?.
14+	Wildlife and Climate Change Educator Resources | WWF	This educator resource is available in English and Spanish to help students understand climate change and adaptation as well as wildlife vulnerability.

Water

Age	Resources	Description
5+	Smithsonian Ocean Portal Educators' Corner | Smithsonian Ocean	Students can explore the ocean virtually via the National Smithsonian Museum of Natural History website, which features an Educators' Corner with featured activities and lesson plans to bring the ocean to life for learners.
5+	Ocean Literacy Scope and Sequence for Grades K–12	An instructional tool from the National Marine Educator's Association geared to help students understand the ocean in ever more complex ways across years of thoughtful, coherent science instruction.
8+	How deep is the ocean? | TED-Ed	In this lesson, Tech Insider's animation on the depth of the ocean puts the actual distance into perspective, showing a vast distance between the waves we see and the mysterious point we call Challenger Deep.
8+	How big is the ocean? - Scott Gass | TED-Ed	In this lesson, Scott Gass reminds us of the influence humans have on the ocean and the influence it has on us. While the Earth's oceans are known as five separate entities, there is really only one ocean.
10+	The nurdles' quest for ocean domination - Kim Preshoff | TED-Ed	In this lesson, Kim Preshoff details the nurdles' quest for ocean domination, shedding light on the particular features that allow these pervasive polluters to persist for entire generations. Nurdles are the tiny, factory-made pellets that form the raw material for every plastic product that we use, from toys to toothbrushes. And while they look pretty harmless on land, they can really wreak havoc on our ocean.
14+	The brilliance of bioluminescence - Leslie Kenna | TED-Ed	In this lesson, Leslie Kenna investigates the magical glow of bioluminescence — and our quest to replicate it. The firefly, the anglerfish, and a few more surprising creatures use this ability in many ways, including survival, hunting, and mating.