Protect Our Planet

SUPPLEMENTAL LEARNING RESOURCES

students REBUILD | CREATIVE VISIONS

Supplemental Learning Resources for Learners Ages 11-14

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 11-14 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
8+	Climate Change - NASA Science	NASA provides resources for students and educators related to global climate change, including NASA specific curriculum.
11 - 14	The Nature Conservancy - Youth Education Resources	Lessons include biological interactions, terminology, the impact of reforestation and urban trees on human health, and more. Each lesson plan comes with a free teacher's guide and video.
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+	Stanford Climate Change Resource	This middle school curriculum helps students understand climate activity, weather, the atmosphere, and climate change debates as well as energy balance and physical systems.
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.

Air

Age	Resources	Description
5 - 10	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.
8+	National Wildlife Federation: Teach 10 Hours for Climate	The National Wildlife Federation provides resources, tools, worksheets, curriculums and activities about climate change.
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.

Land

Age	Resources	Description
11 - 14	GARDEN LESSON PLAN: SOIL | The Nature Conservancy	A lesson plan from the Nature Conservancy teaching how soils help to regulate water, sustain plant and animal life, filter pollutants, cycle nutrients, and support structures.
11+	Classroom Investigations | Bureau of Land Management	Classroom guides and activities to help students understand resource areas, multiple-use land management, and how citizens can affect land use decisions.

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 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. So, how big is it? As of 2013, it takes up 71% of the Earth, houses 99% of the biosphere, and contains some of Earth's grandest geological features.
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.
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.
11 - 14	What is a Coral Reef?	In this lesson from MOOREA Coral Reef LTER Education, students will gain an understanding of the basic components of a coral reef ecosystem, with emphasis on specific factors crucial to reef health and trophic level relationships among key organisms. Also included in the lesson is an opportunity for students to learn about traditional, Polynesian culture and the native uses of coral reef resources.