



AN EDUCATOR AND FAMILY
GUIDE TO
| THE OCEAN |



THE OCEAN

Use this guide to take learners on a virtual ocean exploration—whether they are learning online, in-person, or in blended settings—equipping them with the attitudes, skills and knowledge to take action in their homes, schools, or communities. These resources can be accessed from any device and can be used independently or collaboratively.

READY TO EXPLORE?

THE OCEAN DID YOU KNOW?

Whether you live near a shoreline or far inland, the ocean matters to every human. This interconnectedness—the ocean’s influence on you and your influence on the ocean—is described in these seven **Ocean Literacy Principles**:

Earth has one big ocean with many features.

The ocean, and life in the ocean, shape the features of Earth.

The ocean is a major influence on climate and weather.

The ocean makes Earth habitable.

The ocean supports a great diversity of life and ecosystems.

The ocean and humans are inextricably interconnected.

The ocean is largely unexplored.

QUICK START GUIDE

WITH LINKS

Start your exploration here! Click on the links for different ways to read, watch, play, and learn about the ocean. Continue through the guide to learn more about these unique offerings.

PG 4

EXPERIENCE THE OCEAN

Explorer Classroom | Ages 4-14+

Virtual Field Trip

Citizen Science

PG 6

WATCH, PLAY, AND LEARN

Videos & Interactives | Ages 4-8

Videos & Interactives | Age 8+

MapMaker

Maps & Infographics | Ages 4-8

Maps & Infographics | Age 8+

Kahoot!

A Deeper Dive: More Ocean Resources

PG 8

READ

Explorer Magazine

#GenGeo Ocean Leaders

Book List

BY GRADE LEVEL

ELEMENTARY SCHOOL

Explorer Classroom | Ages 4-8

Citizen Science

Videos & Interactives | Ages 4-8

Maps & Infographics | Ages 4-8

Kahoot!

Explorer Magazine

Book List

MIDDLE SCHOOL

Explorer Classroom

Virtual Field Trip

Citizen Science

Videos & Interactives

MapMaker

Maps & Infographics

Kahoot!

A Deeper Dive: More Ocean Resources

Book List

HIGH SCHOOL

Citizen Science

Videos & Interactives

MapMaker

Maps & Infographics

Kahoot!

A Deeper Dive: More Ocean Resources

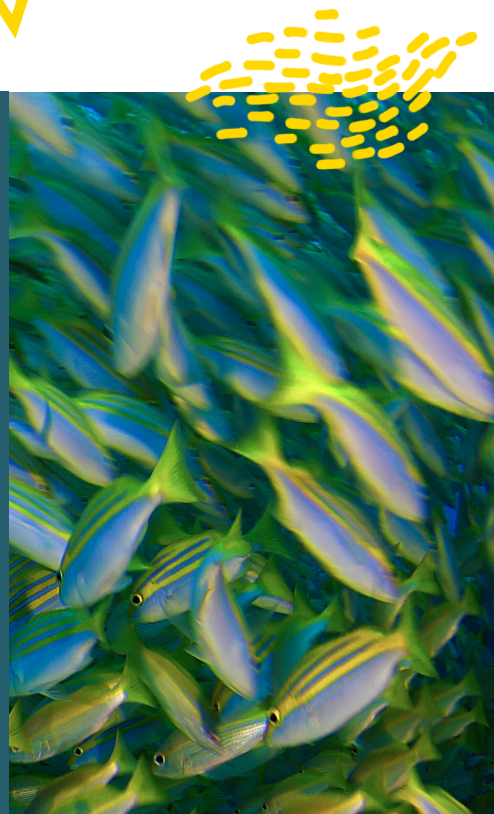
#GenGeo Ocean Leaders

EXPERIENCE THE OCEAN

EXPLORER CLASSROOM

Dive into Explorer Classroom and meet National Geographic Explorers in the field while they are doing their work! Whether it's from onboard an ocean expedition, direct from a lab, or from a research site anywhere in the world, you can connect with an Explorer live throughout the school year or watch on demand via a **collection of past episodes**. Every Explorer Classroom has a downloadable guide to help make the most of each session. Register for a chance to ask questions live on camera, or type them into the moderated YouTube chat bar. Explorer Classroom is available for young learners ages 4-8 and older learners ages 9-14+.

| **EXPLORER CLASSROOM** | AGES 4-14+



VIRTUAL FIELD TRIP

Join an adventure into the deep blue with Explorers **Brian Skerry**, **Salomé Buglass**, and **Sruthi Gurudev**. See what it takes to capture a photograph of a whale pod and what whale culture can teach us. Then journey to the Galápagos Islands to learn how remote operated vehicles (ROVs) give us an unprecedented view of landforms called seamounts. And finally, learn what “eco-journalism” is from one of our youngest Explorers and how she’s building a community of like-minded young people through digital media.



Photo: Manu San Felix

CITIZEN SCIENCE

Around the world people of all ages engage in **citizen science**—participating in projects in which volunteers and scientists work together to answer real-world questions. Becoming a citizen scientist is a great way to learn more about scientific processes and concepts while contributing to authentic research.

There are several fun citizen science tools and projects that allow you to learn more about the ocean and help protect it:

iNATURALIST

AGES 13+

A free app that helps learners age 13+ identify organisms they observe and connects them with a community of over a million scientists and naturalists working to better understand and protect nature. Check out ocean inhabitants [here](#) and virtually travel to any part of the ocean.

SEEK

AGES 5-13

A free app for learners that uses a cell phone camera to identify plants, animals, and other organisms in the environment.

MARINE DEBRIS TRACKER

ALL AGES

A free app that citizen scientists use to help researchers better understand the plastic pollution problem, from global trends to impacts on local communities. Become a solution seeker through articles, videos, instructional guides, a downloadable **Plastic Pollution Journal** and an online course on how to collect data to explore plastic pollution.

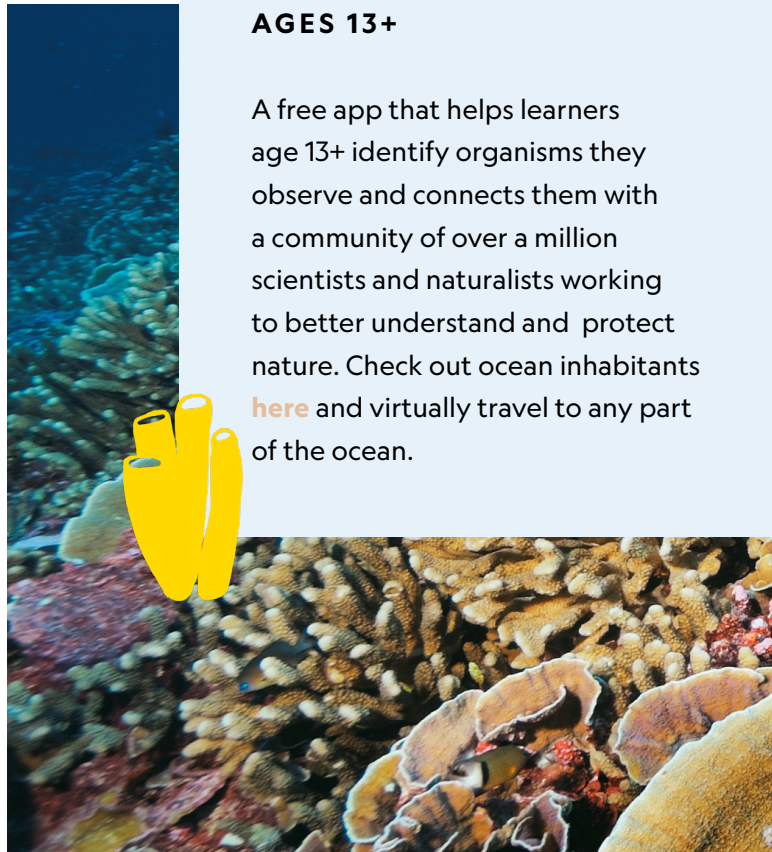


Photo: Brian Skerry.

Find more resources on using Seek and iNaturalist [here](#).

WATCH, PLAY, AND LEARN

VIDEOS AND INTERACTIVES

AGES 4-8 AND 8+

Explore the vast depths of the ocean from a Crittercam point of view when it's attached to a shark, or seal. See glowing reef creatures and other denizens of the deep. From how they create marine protected areas to the use of remote technology, National Geographic Explorers share their work and stories through videos and interactives, divided into collections for younger and older learners.

| VIDEOS & INTERACTIVES | AGES 4-8

| VIDEOS & INTERACTIVES | AGE 8+

MAPMAKER

AGES 10+

MapMaker, National Geographic's Geographic Information System (GIS) tool, helps learners understand the interconnectedness of our world. Use MapMaker and its accompanying resources to learn about the ocean, analyze data, solve problems, and tell stories.

| MAPMAKER

MAPS AND INFOGRAPHICS

AGES 4-8 AND 8+

Introduce learners to geography's most basic tool: the map. The simple maps and infographics in the collection for younger learners will introduce them to the ocean while they use data to cultivate spatial thinking skills. Enhance older learners' critical thinking skills through the use of maps and infographics as they learn about a variety of ocean-related topics.

| MAPS & INFOGRAPHICS | AGES 4-8

| MAPS & INFOGRAPHICS | AGE 8+





KAHOOT! GAMES

ALL AGES

Learners of ALL ages love a good quiz game. Use these [pre-made quizzes](#) to test knowledge on different subjects by playing Kahoot! together. Kahoot! is a game-based learning platform that can be played on any device, as individual contestants or in teams.

| **KAHOOT!**

A DEEPER DIVE: MORE OCEAN RESOURCES

ALL AGES

Learn about the mechanics of the ocean such as currents, tides, and rogue waves, or the effect of the ocean on weather and climate, and much more through this mixed media collection. Also, meet National Geographic Explorers doing exciting ocean exploration and conservation work.

| **A DEEPER DIVE: MORE OCEAN**

EXPLORER MAGAZINE

AGES 5-12

Walk through a window to the world with our free digital Explorer magazine that is available at six different reading levels. Winner of Learning Magazine's 2019 Teachers' Choice Award, *Explorer* magazine helps kids learn about interesting animals, habitats, countries, and people from around the globe. Search to find stories about the ocean and its inhabitants!

| | | |
|--------------------|--------------|------------|
| Scout | Kindergarten | ages 5-6 |
| Voyager | Grade 1 | ages 6-7 |
| Pioneer | Grade 2 | ages 7-8 |
| Trailblazer | Grade 3 | ages 8-9 |
| Pathfinder | Grade 4 | ages 9-10 |
| Adventurer | Grades 5-6 | ages 10-12 |

| [EXPLORER MAGAZINE](#)

BOOK LIST

This **curated collection** of fiction and non-fiction books for young people ages 3-14+ takes readers on oceanic adventures by exploring biodiversity, conservation, human culture, and geography.

| [BOOK LIST](#)

HEAR FROM TODAY'S OCEAN LEADERS

Read inspiring stories from ocean champions. These young leaders are having an impact in their communities—and beyond.

| [READ MORE](#)

LEAD AND ACT

“I believe we need to protect the ocean every day, not just when an environmental catastrophe happens.”

-Prashant Moresh, National Geographic Young Explorer

YOUTH

TAKE STORYTELLING FOR IMPACT COURSES

AGES 16-25

Stories can change the world. Learn from world-class National Geographic photographers, videographers, and visual designers in a series of #GenGeo *Storytelling for Impact* online courses. Created in partnership with Adobe, this series is designed to teach youth how to use compelling photography, video, graphics, and audio to tell stories in the most impactful ways to effect change.

REGISTER TODAY!



FOLLOW #GENGEO

AGES 13+

We believe that young people are key to addressing the planet's most pressing problems. #GenGeo is a growing community of young people who are forging connections and taking action for our planet. See what young people around the globe are doing to illuminate and protect the wonder of our world.

EDUCATORS

JOIN THE NATIONAL GEOGRAPHIC EDUCATOR COMMUNITY

Community is at the forefront of everything we do. We invite you to connect with fellow educators who, like you, are leaning in to take education further with your students and communities.



TAKE *STORYTELLING FOR IMPACT IN YOUR CLASSROOM COURSES*

Stories can change the world. Learn from world-class National Geographic photographers, videographers, and visual designers in a series of Storytelling for Impact online courses. Created in partnership with Adobe, this series will teach you how to use compelling photography, video, graphics, and audio to tell stories in the most impactful ways to inspire change.

REGISTER TODAY!

TO GET STARTED:

Follow us on **FACEBOOK** and **TWITTER** to stay updated and connected with all things National Geographic Education. A few hashtags to share your work and stories with one another:

#ThatsGeography - Inspired by the wonders of our world and the people that inhabit it, this conversation is for anyone who wants a deeper and more nuanced understanding of all that geography encompasses.

#ExplorerMindset - A quick way to share ideas and resources to cultivate an Explorer's Mindset in your learners.

#ConnectingFurther - A way to find other National Geographic educators. Include your interest areas and expertise so others in the community will be able to connect.

