

About this Issue

The cover story of this issue, "[Rebuilding reefs](#)," explores how scientists are working to save coral reefs. Researchers agree that reefs are under threat because of human activity, including climate change, but different research teams are finding their own unique ways to help reefs recover. In reading this article, students can explore ways scientists share information and build on each other's work, as well as how scientists design experiments and collect evidence to test specific ideas. Whether thinking about how the symbiotic relationship between coral and live-in algae relates to bleaching or about how the ocean's acidity affects the solubility of corals' calcium carbonate exoskeletons, students can focus on a particular area of science mentioned in the article while appreciating the cross-curricular nature of rebuilding coral reefs.

Connections to Your Curriculum

Natural selection
Symbiotic relationships
Sexual vs. asexual reproduction
Photosynthesis and cellular respiration
Effects of climate change and greenhouse gases on oceans
Experimental design
Light absorption in seawater
Structure and properties of CaCO_3

What's in this Guide?

- [Article-Based Observation](#): These questions focus on reading and content comprehension by drawing on information found in the article "Rebuilding reefs." Students will explore how scientists are trying to save the world's coral reefs.
- [Quest Through the Archives](#): With Internet access and your school's digital access to *Science News*, your students can use this short section to explore the history of coral reef science and coral bleaching as reported by *Science News* since 1922.
- [Cross-Curricular Discussion](#): These questions and extension prompts encourage students to think about the different approaches scientists take to a problem and how coral science connects to student learning across the science disciplines, as well as the ethical considerations associated with the approaches discussed in the article. This section culminates with Engineering and Experimental Design questions and prompts to help further define the research covered in the article.
- [Data Analysis Activities](#): Three activities give students the opportunity to use and interpret data to look for patterns in bleaching alerts. These activities flow together but can be used independently.

Standards Alignment

Next Generation Science	Common Core
Matter and its Interactions: HS-PS1-2	ELA Standards: Reading Informational Text (RI): 1, 4, 7
Waves and their Applications in Technologies for Information Transfer: HS-PS4-1	ELA Standards: Writing (W): 2, 4, 6
Ecosystems: Interactions, Energy, and Dynamics: HS-LS2-2 , HS-LS2-6 , HS-LS2-7 , HS-LS2-8	ELA Standards: Speaking and Listening (SL): 2, 4, 5
Heredity: Inheritance and Variation of Traits: HS-LS3-1	ELA Standards: Reading for Literacy in Science and Technical Subjects (RST): 1, 2, 4, 7, 9
Earth and Human Activity: HS-ESS3-6	ELA Standards: Writing Literacy in History/Social Studies and Science and Technical Subjects (WHST): 2, 4, 6, 7, 8
Engineering Design: HS-ETS1-4	