Overarching Questions:
How do we know what we know? How does what we know inform our decision making?

Bigger Ideas *ReaL Earth System Science* http://virtualfieldwork.org/Big_Ideas.html	Earth & Space Science Core Ideas* *A Framework for K-12 Science Education* http://www.nap.edu/catalog.php?record_id=13165	Ocean Literacy Principles http://coexploration.org/oceanliteracy/documents/OceanLitChart.pdf	Climate Literacy Principles http://climateliteracynow.org	Atmospheric Science Literacy Principles http://eo.ucar.edu/asl/index.html	Earth Science Literacy Big Ideas http://www.earthscienceliteracy.org/
Earth is a system of systems.	Dimension 3: Disciplinary Core Ideas: Earth & Space Science **ESS2: EARTH'S SYSTEMS** *How and why is the earth constantly changing?*	The ocean is a major influence on weather and climate.	Climate is regulated by complex interactions among components of the Earth system.	Earth's atmosphere continuously interacts with the other components of the Earth System.	Earth is a complex system of interacting rock, water, air, and life.
The flow of energy drives the cycling of matter.	**ESS3: EARTH AND HUMAN ACTIVITY** *How do Earth's surface processes and human activities affect each other?*	The ocean supports a great diversity of life and ecosystems.	Life on Earth depends on, has been shaped by, and affects climate.	Energy from the Sun drives atmospheric processes.	Humans significantly alter the Earth.
Life, including human life, influences and is influenced by the environment.	**ESS1: EARTH'S PLACE IN THE UNIVERSE** *What is the universe, and what is Earth's place in it?*	The ocean makes Earth habitable.	The Sun is the primary source of energy for Earth's climate system.	Atmospheric circulations transport matter and energy.	Humans depend on Earth for resources.
Physical and chemical principles are unchanging and drive both gradual and rapid changes in the Earth system.		The ocean and humans are inextricably interconnected.	Climate change will have consequences for the Earth system and human lives.	Earth's atmosphere and humans are inextricably linked.	Natural hazards pose risks to humans.
		The ocean and life in the ocean shape the features of the Earth.	Human activities are impacting the climate system.	Earth has a thin atmosphere that sustains life.	Earth scientists use repeatable observations and testable ideas to understand and explain our planet.
To understand (deep) space and time, models and maps are necessary.	Dimension 1: Scientific & Engineering Practices Dimension 2: Crosscutting Concepts	The Earth has one big ocean with many features.	**Humans can take actions to reduce climate change and its impacts.**	Earth's atmosphere changes over time and space, giving rise to weather and climate.	Life evolves on a dynamic Earth and continuously modifies Earth.
		The ocean is largely unexplored.	Climate varies over space and time through both natural and man-made processes.	We seek to understand the past, present, and future behavior of Earth's atmosphere through scientific observation and reasoning.	Earth is continually changing.
			Our understanding of the climate system is improved through observation, theoretical studies and modeling.		Earth is 4.6 billion years old.
					Earth is the water planet.

*Unlike the other idea sets listed here, the Earth & Space Science Core Ideas are part of a larger document. Four sets of Disciplinary Core Ideas are included in the *Framework*: Physical Sciences; Life Science; Earth & Space Sciences; and Engineering & Technology. Together, these make up one of three dimensions in the *Framework*.

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