



# Air, Water and Land

These exhibits help you discover some of the phenomena that involve interactions between air, water, and land.

 **Think About It**

- How does moving water play a part in each exhibit?
- How do the interactions between air, water and land at these exhibits affect the environment?

**How to use this guide**

To help guide your visit, we have developed this learning pathway to explore a specific topic using some of the exhibit components.

- Look up the words in bold in the vocabulary list on the back.
- Continue your investigations into other areas of the museum by checking out “Where To Learn More” on the back of this page.
- Follow this path as you explore the gallery, try a different path, or create your own path and follow where your curiosity takes you!



**STREAM TABLE**

- How and why do the patterns in the sand change?
- What makes the sand build up in some spots and go away in others?



**CLIMBING STRUCTURE**

- As you climb, imagine you are a drop of water in the **water cycle**. What is happening to you as you climb higher?



**DISCOVER R WEATHER**

- How are different types of weather patterns caused by the motion of water and air?



**R.O.V.**

- What causes the R.O.V. move up and down?
- What are the bubbles that come out of the R.O.V. when you push “up”? Do you see the bubbles when you push “down”?



**CLIMBING WALL**

- Look at the different levels of **sedimentary rock** in the wall. What do these layers represent?
- How do you think the layers got there?



 **What's Going On?**

There are many closely connected **systems**, that can cause change in the Earth’s crust, lakes, oceans, and **atmosphere**. The water cycle recycles moisture by **evaporation**, **condensation**, and **precipitation**. The motion of air and water in our atmosphere creates different **weather** conditions and affects our **climate**. **Erosion** and **deposition** shape the Earth’s surface and can leave behind important information about Earth’s history through sedimentary rock.

### Where to find more...

#### Exhibits

- Turbulent Landscapes
- Expedition Earth

#### Other Experiences

- Carlson Inquiry Room
- Wormy & Mother Nature
- Solids, Liquids & Gases

(check for booking availability)

### Read More About It!

Lloyd H. Barrow

#### **Adventures with Rocks and Minerals: Geology Experiments for Young People**

Enslow Publishers, Inc., 1991

#### **Earth Science Learning Resources**

<http://web.archive.org/web/20041029155420/http://www.exploratorium.edu/ti/resources/earthscience.html>

Joanna Cole

#### **Magic School Bus: Inside the Earth**

Scholastic Inc., 1987

#### **Science Screen Report, v. 19 Issue 2: Climatology (VHS, 16.27 minutes)**

Allegro Productions

William J. Burroughs

#### **Watching the World's Weather**

Cambridge University Press, 1991

Joan Carrafiello, ed.

#### **Water & Air**

Globe Fearon Educational Publisher, 1995

#### **Water Learning Resources**

<http://www.exploratorium.edu/ti/resources/water.html>

Peter Giddings

#### **Weather Fun**

Pete Enterprises, Inc., 1991



**Atmosphere** – The layer of gases around any planet. For Earth, it is the air that enables plants and animals to live.

**Climate** – A typical pattern of weather conditions for any area.

**Condensation** – The process of a gas cooling to form a liquid.

**Deposition**- The process of adding earth material (soil, rock) to an area of land.

**Erosion** – The gradual wearing down of rock by wind and water.

**Evaporation** – The process of a liquid becoming a gas.

**Precipitation** – Rain, sleet, snow, or hail.

**Sedimentary Rock** – The type of rock formed when minerals are left, buried and squashed into layers.

**System** – A group of things that work together for a certain purpose.

**Water Cycle** – The natural process of recycling water between the Earth, the atmosphere and living things.

### NYS Learning Standards

CDOS1: Career Development

SS1: History of the United States and New York (3)

SS3: Geography (1,2)

SS4: Economics (1)

ELA1: Language for Information and Understanding

MST1: Analysis, Inquiry, and Design (1,2)

MST4: The Physical Environment (2,3,4,5)

MST4: The Living Environment (1,3,7)

MST5: Technology (2,3,4,6)