



ATMOSPHERE AND BEYOND

We're on a mission to explore the atmosphere on Earth, and beyond! Travel to the end of the rainbow and make a sunset. Mix up various planetary atmospheres, one molecule at a time. Discover how NASA monitors planetary weather by using your very own Mad Science® Meteorological Station!

SUMMARY:

In Atmosphere and Beyond, children discover the properties of the air around us and explore the atmosphere of Earth, and those of planets beyond. Children are challenged to keep Army the Aquanaut dry during an underwater walk, and to create their very own sunset. After assembling the atmospheres of other planets, they build their very own Mad Science® Meteorological Station so they can monitor weather patterns here on Earth!

EDUCATIONAL VALUE:

In this Earth-science-focused program, children gain an understanding of the importance of the atmosphere for life on Earth, and compare the composition of Earth's atmosphere with those of other planets in the solar system. They learn what it takes to make a planet viable for life as we know it, and explore the effects of atmospheric particles on the color of sunsets and rainbows. Finally, they have a chance to build a Mad Science® Meteorological Station to monitor the weather patterns caused by the interaction of Earth's atmosphere and the Sun's energy.

TAKE-HOME MESSAGE:

- 1 The Earth's atmosphere is mainly made up of oxygen, nitrogen, and argon.
- 2 The rainbow happens when the sun shines through an atmosphere full of water drops.
- 3 Real stars twinkle because the atmosphere bends their light before they reach our eyes. There is no atmosphere on the Moon, so the stars do not twinkle!

TAKE-HOME PRODUCT:

Mad Science® Meteorological Station

NORTH CAROLINA ESSENTIAL STANDARDS:

- K.E.1.2 Summarize daily weather conditions noting changes that occur from day to day and throughout the year.
- 1.L.1.1 Recognize that plants and animals need air, water, light (plants only), space, food and shelter and that these may be found in their environment.
- 3.P.2.1 Recognize that air is a substance that surrounds us, takes up space and has mass.

