# Brief Description: This is an interactive video overview – video is included and worksheets can be completed easily by students online or on paper for picture submission. On the student page you will find the link to the video and worksheet to accompany the video. There is an optional project that students can complete to dive further into a specific air quality issue. See the bottom of this page for more information.

***Air Quality*Distance Learning – Middle School Activity**

**What is Air?**

This activity includes the topics:

* Components of air
* Air pressure
* Temperature changes and air
* Interactions of temperature, volume and pressure
* Water vapor and air
* Layers and composition of the atmosphere

# Specific Instructions: The “What Is Air?” video reviews properties of air through a series of hands on demonstrations. You should encourage students to complete these demonstrations with parents at home-many can be done with simple household items. At a minimum, students should complete the worksheet associated with the video in order to have a comprehensive understanding of the topics listed above.

# Standards Correlation:

6th grade (this is a review of 5th grade standard)

5.P.2.1 Understand the interactions of matter and energy and the changes that occur.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Covers all of these standards, the optional project portion (see below) covers all of standard 7.E.1.

7.E.1.1 Compare the composition, properties and structure of Earth’s atmosphere to include: mixtures of gases and differences in temperature and pressure within layers.

 7.E.1.2 Explain how the cycling of water in and out of the atmosphere and atmospheric conditions relate to the weather patterns on Earth.

7.E.1.6 Conclude that the good health of humans requires: monitoring the atmosphere, maintaining air quality and stewardship.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review to prep for:

8.E.1.1Explain the structure of the hydrosphere including: • Water distribution on earth.

8.P.2.1 Explain the environmental consequences of the various methods of obtaining, transforming, and distributing energy.

# For More Information: If you would like to view our curriculum in its entirety and utilize the rest of the videos, teacher tutorial videos and activities you can find that resource here: <http://itsourair.org/>

**AQ-IQ Research Project *–*** *students research an issue for air quality, explain it and create an original product to be submitted on any digital media platform.*If you are interested in this assignment, please view full details [here](http://web.eenorthcarolina.org/resource/about.aspx?s=121764.0.0.37430)

Research topics include:

* Climate Change
* Transportation
* Earth Day and Air Quality – in recognition of the 50th Anniversary of Earth Day
* Fire – in recognition of N.C. State Park’s Year of the Fire

 We’d love to hear from you! Give us feedback [here](https://forms.office.com/Pages/ResponsePage.aspx?id=3IF2etC5mkSFw-zCbNftGeRWa4Q1AflMpi39Z4cQtn9UNDkyRTRLRjVGNVU3V0RMVDNPSUFSODc4Ry4u) so we can better serve you and your students.