

AQ-IQ Contest Student Worksheet and Instructions

The AQ-IQ Contest is run by the Air Awareness program of the North Carolina Department of Environmental Quality, Division of Air Quality (DAQ). It is one of the ways the DAQ helps to fulfill the mission of, ***“Providing science-based environmental stewardship for the health and prosperity of ALL North Carolinians.”***

The AQ-IQ Contest is open to all seventh-grade students in North Carolina. Students investigate and create a project to answer the essential question: What are the effects of air pollution and what are some solutions to North Carolina’s air quality challenges? Students will research an air quality problem, look at solutions to that problem, and make a project to educate others. AQ-IQ projects will all be submitted through the [online registration form](#). The projects can be turned in at any time, but are due before midnight, **March 8, 2027**. This worksheet will help you make a good AQ-IQ Project.

The AQ-IQ Resource Page:

- <https://www.deq.nc.gov/about/divisions/air-quality/outreach-education-engagement/nc-air-awareness/teachers-and-students/aq-iq-contest>

Advice from Students:

- https://www.youtube.com/watch?v=QwYh-dIZ2E&list=PLIGhN_h_F3II&index=6&t=26s

Advice for Teachers:

- <https://www.youtube.com/watch?v=ArtLhL1z1hY>

View some projects from the past:

- NC Air Awareness AQ-IQ Playlist: https://www.youtube.com/playlist?list=PLIGhN_h_F3II

In March, air quality professionals, environmental specialists, and educators will review and rank the projects. In early May we will announce the best projects in each of the project categories for each of the seven [DAQ Regional Offices](#). We will also invite the best projects to the Annual AQ-IQ Recognition Event, July 17, 2027 – most likely at the [North Carolina Transportation Museum](#), in Spencer North Carolina. At that event we will recognize the best projects in the state as well as giving recognition in the special categories, judges choice, and the Margie Meares Award for the Best Project in the State.

N.C. Division of Air Quality – AQ-IQ Contest

Contact: Keith Bamberger, keith.bamberger@deq.nc.gov

All of this information and more is located on the NC DAQ AQ-IQ Resource Page:

<http://web.eenorthcarolina.org/resource/about.aspx?s=121764.0.0.37430>

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Step by Step Guide

Step One: Research and Choosing an Air Pollution Challenge to study
Information, Links and Resources (to get you started):

- North Carolina Division of Air Quality Page: <http://www.ncair.org>
- North Carolina Air Quality Portal: <https://airquality.climate.ncsu.edu>
- Environmental Protection Agency Air Quality Page: <https://www3.epa.gov/airquality>
- Air Now National Air Quality Maps and Resources: <https://www.airnow.gov>
- The EPA EnviroAtlas Health Relationship Browser:
https://enviroatlas.epa.gov/enviroatlas/Tools/EcoHealth_RelationshipBrowser

Step Two: How does your project answer the essential question:

What are some solutions to the air quality challenges in North Carolina, and how can we protect the health of humans and the environment? (NC Science Standard ESS.7.2) How does your project align with the judging criteria?

Project Judging Criteria

The goal of your project is to show that you understand the problem and look at or develop solutions to the problem that can be used to educate others.

- Project Criteria: Educates Others about an air quality challenge
- Project Criteria: Scientific Facts and Bibliography
- Project Criteria: Spelling and Grammar
- Project Criteria: Creativity
- Project Criteria: Appearance

Step Three: Choose what type of project you are going to do and create your project:

Projects will be submitted in one of these four categories:

- **Artistic Projects** – paintings, poems, stories, songs -- be creative but remember the goal is to engage and educate. It helps the judges if you provide lyrics or a script to songs and or plays.
- **Online and Interactive Projects** – Minecraft environments, interactive web pages, online games, a series of connected social media posts: You can submit a Minecraft environment as a narrated video. Other on-line projects, like Kahoot quizzes or other games can be submitted as a link.
- **Posters** – posters, project and experiment reports, infographics: It is important to take good pictures of your posters, so we can read the words and see the legends to any graphs. We recommend taking several pictures of the poster and sending them to be evaluated as a PDF or PowerPoint.
- **Videos** – skits and plays, music videos, newscasts, investigations and interviews, and other projects that are best told on screen. Shorter is usually better. Try not to use copyrighted background music or images: this will keep us from sharing your work. **Videos Limited to Seven Minutes.**

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2026 - 2027 Special Topic Categories

Each year the AQ-IQ Contest highlight current events in air quality through special awards categories.

From the Directors Office: ***25 years of the NC Clean Smokestacks Act*** (Enacted June 20, 2002) - Celebration is near! On June 20, 2027, we will be celebrating 25 years of the NC Clean Smokestacks Act. The NC Clean Smokestacks Act was created to cut air pollution from the state's coal fired power plants. This helped create cleaner air, removed haze from the Blue Ridge and Smokey Mountains, and improved the health of all North Carolinians. Help us celebrate clean air through your project.

In the news: ***Wildfire Smoke: Impacts of wildfire smoke on air quality and health*** – Cough. Cough. "Did you know wildfire smoke can travel far beyond the location of the fire?" Explore how wildfire smoke is made, investigate how it changes the air quality as it travels, and discover why certain pollutants can pose risk to human health.

Camera, Lights, Action, Sing! Air pollution in song and film – We're looking for projects that bring all the drama to the big DEQ screen. Whether you are singing an original air quality song, acting out a skit about an air quality challenge, or filming your own air quality news, we want to see all your creativity and learn about how we can work to keep the air clean for all.

Air Quality Acronyms – Give me a "A", Give me a "T", Give me a "R", what does that stand for? AIR. This special topic explores acronyms commonly found in an Air Quality specialist's vocabulary. From AQI, PM2.5, PM10, and NAAQS, there are many acronyms used to help scientists and communities understand what's in the air, and how it affects health and the environment. Explore the meaning of one, or a few, of these acronyms and develop your own creative way to help others understand these important air-quality terms.

AQ-IQ Contest
Student Worksheet and Instructions

Step Four: Turn your project:

Please use the on-line submission form. Projects may be turned in at any time, but they are due March 8, 2027. DAQ will notify the regional winners of the AQ-IQ Contest in early May 2027.

Your will need:

- Name, e-mail, school, a summer/parents e-mail will be helpful;
- Teacher's name and e-mail;
- Bibliography and References;
- Name your electronic file: Last name_school_project type;
- Link to Project Submission Form:

<https://ncdaq.wufoo.com/forms/z1f26nga0d7yioc/>



Student Names
Teacher Name:

Project Title

Project Type (pick one)			
Artistic	Online/Interactive	Poster	Video

Research
Cite your sources here of websites you used to gather your information. This information is <i>required</i> .

Air Quality Problem and Solution
Problem Researched:
Solutions Summary:

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