Air-tivity Rubric & Submission Requirements

Max Points	Air-tivity	Description	Submission Requirements
500	**Research Question Analysis**	Develop a research question and complete a written report documenting your scientific investigation and conclusions. Students will develop and investigate an approved research question related to $PM_{2.5}$ air quality using existing air quality data, data collected with a PurpleAir sensor, or a combination of both. Students will apply the scientific method to analyze their selected topic. Examples of research questions can be found on the AIR-FAIR website. Students are encouraged to use this as the "first step" to developing the Research Question Poster (air-tivity below).	**Two to Five-Page PDF Including:** 100 pts) Clearly stated and approved research question 100 pts) Background information on why research question was chosen 100 pts) Scientific method followed 100 pts) Air quality data included and analyzed 100 pts) Written conclusion that answers the hypothesis
350	**Research Question Poster**	Create a poster that presents your research question, scientific investigation, $PM_{2.5}$ air quality data, and conclusions. Students should organize their information in a clear, visually engaging format that effectively communicates their research process and findings. This air-tivity allows students to share their scientific investigation with others while practicing science communication skills. Information from their research question analysis (air-tivity above) is allowed to be reused and highlighted in the poster presentation.	**One-Page Large Poster PDF Including:** 25 pts) Clearly stated and approved research question 25 pts) Background information on why research question was chosen 25 pts) Scientific method followed 25 pts) Air quality data included and analyzed 50 pts) Written conclusion that answers the hypothesis 200 pts) Organized, easy to read and follow, poster design following the given template located in the “AIR-FAIR Resources and Links” document.
500	**Art Project**	Create an original piece of artwork inspired by $PM_{2.5}$ or other air quality data, weather, or another approved air quality topic. Artwork may include paintings, drawings, sculptures, photography, digital art, mixed media, or another approved artistic medium. Students should use their artwork to communicate an air quality message and explain how it relates to air quality data or what they learned throughout the project. Students should also emphasize why they think their chosen air quality topic is important to educate the public about. We will not accept AI produced artwork.	**Original Piece of Artwork:** 200 pts) Physical submission to regional office OR high-quality images of the project **Two-Page PDF:** 100 pts) Explains the art and how it relates to air quality data or findings 100 pts) Explains the intended audience and what your art is trying to convey to them 100 pts) Explains why you are choosing art to educate people on your chosen air quality topic(s) and why you think it is important
400	**Infographic Report**	Create an infographic that visually communicates an air quality topic and highlights findings from air quality data. Students should use graphs, charts, maps, illustrations, icons, or other visuals to present scientifically accurate information in a clear, engaging, and easy-to-understand format. The goal of this air-tivity is to communicate complex air quality information in an informative and visually appealing manner. We will not accept AI produced infographics.	**Two-Page PDF Including Multiple Infographics:** 100 pts) At least 2+ graphs, charts, maps, and/or other professional visual representations of data 100 pts) Explanation of your findings 50 pts) A clear title and figure captions for each infographic 50 pts) Includes accurate air quality data 50 pts) Scientifically accurate information 50 pts) Organized, visually appealing layout that is easy to read

Max Points	Air-tivity	Description	Submission Requirements
400	**Two-Page Analysis**	Write a two-page paper that compares one source of $PM_{2.5}$ air quality data with another approved data source. This comparison may include local weather observations (https://www.weather.gov/), data from DEQ regulatory monitors (https://airquality.deq.idaho.gov/home/map**),** another PurpleAir sensor in Idaho (https://fire.airnow.gov/#4.11/41.92/-97.14**),** or another approved air quality dataset from Idaho or other states across the country. Students should analyze similarities and differences between the data sources, explain possible reasons for those differences, and use evidence to support their conclusions.	**Two-Page PDF Including:** 100 pts) Comparison of PM2.5 air quality data to another approved air quality data source 100 pts) Supporting graphs, tables, and/or figures highlighting the data findings 100 pts) Explanation and theories of the observed differences and/or similarities 100 pts) Conclusion of findings
300	**Video**	Create a video (3-10 minutes) that educates viewers about an air quality topic using $PM_{2.5}$ air quality data. Students may explain a research question, investigate an air quality event, discuss the Air Quality Index (AQI), or compare data sources. Videos should be scientifically accurate, engaging, and designed for the intended audience.	**Video (or YouTube link) Including:** 100 pts) 3-10 minutes in length 50 pts) Includes air quality data 50 pts) Scientifically accurate information **One-Page PDF:** 50 pts) Explains how the video relates to air quality data 50 pts) Explains why you are educating people on your chosen air quality topic(s)
300	**Social Media Campaign**	Create four or more social media posts that highlight $PM_{2.5}$ air quality data used or analyzed by your group. Students may promote a research question they investigated or educate the public about another approved air quality topic. This air-tivity encourages students to communicate scientific information in a creative, engaging format while considering how to effectively reach their intended audience. We will not accept AI produced graphics.	**Four Original Social Media Graphics/Posts Including:** 100 pts) Four original and engaging graphics that were drawn digitally or by hand 50 pts) Captions for each of the four posts 50 pts) Scientifically accurate information **One-Page PDF:** 50 pts) Explains how the social media campaign relates to air quality data 50 pts) Explains why you are educating people on your chosen air quality topic(s)
300	**AQI Awareness Campaign**	Create an awareness campaign that educates others about the Air Quality Index (AQI) and how it can be used to make informed decisions about outdoor activities and health. Students may develop educational materials, presentations, flyers, displays, or other outreach products designed for a specific audience. This air-tivity encourages students to communicate the importance of air quality with a focus on the AQI for $PM_{2.5}$, use relevant air quality data, and promote reliable AQI resources. We will not accept AI produced graphics for the AQI campaign. For more information on the AQI, go to https://www.airnow.gov/aqi/aqi-basics/	**Awareness Campaign Including:** 100 pts) At least one original educational product (presentation, flyer, poster, display, brochure, etc.) 50 pts) Scientifically accurate AQI information and descriptions 50 pts) Connection to air quality data **One-Page PDF:** 50 pts) Explains the intended audience and the goal of the campaign 50 pts) Explains how the campaign promotes AQI awareness and relates to air quality data
300	**Policy Pitch/Community Action Proposal**	Develop a proposal that uses $PM_{2.5}$ air quality data and research to recommend an action that could improve air quality awareness, preparedness, or public health in your school or community. Proposals may focus on topics such as wildfire smoke preparedness, no-idling campaigns, indoor air quality, educational outreach, or another approved air quality initiative. Students should support their recommendations using scientific evidence and explain how their proposal could positively impact their community.	**Two to Three-Page PDF Including:** 50 pts) Description of the identified air quality issue 50 pts) Explains the intended audience and the goal of this pitch/proposal 50 pts) Proposed solution or recommendation 50 pts) Supporting air quality data or scientific evidence 50 pts) Expected community benefits 50 pts) Conclusion summarizing the proposal

Air-tivity Submission Guidelines and Scoring

Each air-tivity is assigned a maximum point value. Every submission requirement is assigned a point value based on its importance to the project. Teams receive points for each completed requirement, allowing judges to score consistently and objectively, based upon effort and completeness. Teams are encouraged to complete as many air-tivities as they wish to earn additional points throughout the competition. Each team may submit only one project per air-tivity type, allowing a maximum of nine submissions per team. The submission form for air-tivities can be accessed at any time on the DEQ AIR-FAIR website.

- Unless otherwise noted, all written materials should be submitted as a PDF.
- Written documents should use 12-point Calibri font, single-spaced.
- All projects must include scientifically accurate information.
- PurpleAir data should be incorporated whenever applicable.
- All graphics, images, charts and figured should be clear, readable, and appropriately labeled.
- Students are encouraged to cite all outside sources used in their project in the team's submittal form.
- Projects must be the student's original work.
- Projects must be submitted through the submittal form linked on the website by the due date: 4/15/2027.

***** If AI tools are used during project development, students must acknowledge how they were used. AI should support learning and creativity but should not replace the student's original work. AI-generated artwork will not be accepted.*****