

Judging at *Imagine Tomorrow* – What to Expect

Thank you for serving as a judge for the Alaska Airlines *Imagine Tomorrow* competition. This document provides criteria and standards to apply as you evaluate students' projects. These standards are simply general guidelines—you have the flexibility to apply your own expectations as you see fit.

Who is competing? Competitors are students in grades 9–12 from Washington, Idaho, Oregon, and Montana. Over the academic year, student teams have worked under their advisors' guidance to create the projects that you will judge. We think you will be impressed by their skills and quality of work.

Competitors' frame of mind: These students are, on the whole, quite nervous. Please keep this in mind as you consider how to rate each project. Also, while we encourage you to talk with students about relevant topics and hope that you will actively engage them in conversation and questioning, please be sure that the questions you pose can reasonably be answered by a 14-year-old high school freshman.

Guidelines for interacting with students: Please strictly limit the time you spend with any one team to 20 minutes, and strive to keep it at 15 minutes. Expect to see projects of varying quality. If you encounter a project that you know is unfeasible, please avoid the temptation to lecture the students or disparage the project. Be supportive, thank the team, and move on to your next judging assignment.

Writing explanatory comments: Students and advisors will receive copies of your judging sheets after the competition. Please write comments to help them understand your perceptions and learn as much as possible from the competition experience. Diplomacy is key. Please be tactful and respectful in describing a project's shortcomings.

How to rate projects: We ask that you consider projects in two ways. First evaluate them overall using the numeric rating system described below, and then nominate those that might fit for specialty awards. Please consider both the challenge topic (the *Itron* Food, Energy, and Water Challenge; the *Boeing* Aerospace Challenge; or the *McKinstry* Built Environment Challenge) and the approach (Technology, Design, Behavior, or Multi-Approach) when scoring. Teams with the highest numerical ranking in each challenge/approach will be considered for challenge awards, and those with the most nominations will be considered for specialty awards.

Three Judging Phases

Phase 1: Morning – general evaluation 8:00 – 11:15 a.m.

Score sheets: Please start by picking up three Individual Project Score Sheets in the Judges' Hospitality Room. Please do not judge projects from schools with which you have an affiliation. Please do not judge a project more than once.

Project evaluations: Please visit the teams identified on your score sheets. Evaluate each team on the five dimensions described below, complete a rating sheet, and calculate the total project score. If applicable, also check off any specialty award for which you feel the project should be considered.

More project evaluations: Once you have completed judging these projects, please return the score sheets to the Judges' Hospitality Room. Then pick up three additional Individual Project

Score Sheets. Keep track of the projects you judge to ensure that you don't pick up a second sheet for the same project. Proceed to visit and evaluate the next three projects. Repeat this process throughout the day for as many projects as you wish to visit.

Specialty award candidates: Do not forget to check off those teams that might be considered for specialty awards. You may nominate multiple teams for each award. Specialty awards are:

- **Innovative**
- **Likely to Succeed in the Marketplace**
- **Community Impact**
- **Global Impact**
- **Exceptional Teamwork**
- **Inspirational** (awarded to a team that may have endured hardships or obstacles on their way to compete).

Phase 2: Judges' discussion and private viewing of projects (without students/advisors) 11:15 a.m. – noon

Judges will have the opportunity to view projects privately—without the presence of students and/or their advisors.

Phase 3: Afternoon – general evaluation 1:00 – 3:00 p.m.

Following lunch, please return to the Judges' Hospitality Room and continue with the general evaluation process. When you are finished with judging, feel free to visit more teams as talking with the judges is a highlight of the students' experiences.

Judging Guidelines

Objective

- 5 pts:** The objective was clearly stated and is relevant to the competition challenge in which it was entered. The objective was developed by the students. The proposed solution is workable and would be acceptable to the typical user.
- 4 pts:** The objective was clearly stated and is relevant to the competition challenge in which it was entered. The objective was developed by the students. The proposed solution is workable but may not be acceptable to the typical user. Thoroughness of how the solution applies to potential stakeholders is lacking.
- 3 pts:** The objective was clearly stated and is relevant to the competition challenge in which it was entered. The objective was largely developed by the students. The proposed solution may not be workable.
- 2 pts:** The objective was clearly stated and is relevant to the competition challenge in which it was entered. The students appear to have had only a small part in developing the objective. The proposed solution is definitely not workable.
- 1 pt:** There was no clear evidence of the students' role in developing the objective although the objective may have been clearly stated. There is not a good match between this project and the particular challenge in which it was entered.
- 0 pts:** The objective was unclear. I don't know what this project is trying to accomplish.

Creativity

- 5 pts:** Students display a curiosity about the concept [project] that shows original thought and incorporates a novel approach to the problem. Students' generated techniques and/or ideas are used in ways that I have not seen done or suggested before.
- 4 pts:** Students display a curiosity about the concept [project] that shows original thought and incorporates a novel approach to the problem. It builds on existing techniques that are being discussed by the current team as potentially useful for solving the problem.
- 3 pts:** Students display a curiosity about the concept [project] that shows original thought, but attacks the problem from a standpoint that other researchers or prior teams have already begun investigating. Nevertheless, the idea has potential.
- 2 pts:** Students display a curiosity about the concept [project] that shows original thought, but requires approaches and/or technologies that are simply not practical at this point. Nevertheless, the idea may have long-term potential.
- 1 pt:** The project simply builds on ideas that others have already advanced. It might make a contribution toward the solution of the problem, but a minor one. Idea generation was heavily influenced by advisor.
- 0 pts:** The project is a simple replication of work being done by others. No original thought seems to have gone into the work. No new innovative techniques being developed.
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Inquiry

- 5 pts:** The project offered a clear and testable question. The procedures were well thought out by the students. The methods for evaluating the question were appropriately selected and designed by students. The team recognizes the limitations of their study, and presents ideas for follow-up research.
- 4 pts:** The project offered a clear and testable question. The procedures were well thought out by the students. The methods for evaluating the question were appropriately selected and designed by students. The team recognizes the limitations of their study, but does not seem to have ideas for follow-up research.
- 3 pts:** The project offered a clear and testable question. The procedures were well thought out by the students. The methods for evaluating the question were appropriately selected and designed by students. The team does not note any limitations of their study, nor do they seem to have ideas for follow-up research.
- 2 pts:** The project offered a clear and testable question. The procedures appeared appropriate but the students' involvement in the development of them was unclear. The methods for evaluating the question can be improved. The team does not note any limitations of their study, nor do they seem to have ideas for follow-up research.
- 1 pt:** The project offered a clear and testable question. The procedures were not well thought out. The methods for evaluating the question can be improved. The team does not note any limitations of their study, nor do they seem to have ideas for follow-up research.
- 0 pts:** The question driving this project is either unclear or not truly testable.
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Thoroughness

- 5 pts:** The team demonstrates a thorough knowledge of scientific literature appropriate for the project. They are familiar with different theories that are germane to the problem. The approach they have adopted is broad enough to address all major aspects of the research question. Key references have been cited.
- 4 pts:** The team demonstrates knowledge of scientific literature appropriate for the project (and appropriate for high school students). They are familiar with different theories that are germane to the problem. The approach they have adopted is broad enough to address most major aspects of the research question. Insufficient or no references to key studies are provided.
- 3 pts:** The team demonstrates knowledge of scientific literature appropriate for the project (and appropriate for high school students). They appear familiar with some theories that are germane to the problem. The approach they have adopted is useful for some, but not all, major aspects of the research question. No references to key studies are provided.
- 2 pts:** The team demonstrates some knowledge of scientific literature related to the project. They appear familiar with some theories that are germane to the problem. The approach they have adopted is insufficient for fully evaluating the research question. No references to key studies are provided.
- 1 pt:** The team demonstrates a small degree of knowledge of scientific literature related to the project. They do not seem to be familiar with different theories that are germane to the problem. The approach they have adopted is insufficient for fully evaluating the research question. No references to key studies are provided.
- 0 pts:** The team does not understand the scientific literature at a level one would expect from high school students. The approach they have adopted is insufficient for fully evaluating the research question. No references to key studies are provided.
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Presentation

A 5-point presentation will exhibit all these features:

- The project display completely covers all aspects of the work.
- The nature of the problem is clearly explained.
- The idea and actual work are clearly explained.
- The students explained their work and answered questions to my satisfaction.
- Students clearly worked as a team in that they could all answer questions about any part of the project.
- The visual presentation was appropriate, pleasing to look at, and uncluttered.

One point will be deducted for each feature that, in the judge's judgment, does not meet expectations (but the minimum score is zero).

Total points possible: 25

*All projects should follow ethical research conduct guidelines.
A minimum of two team members must attend the competition.*