Young Aerospace Visionaries Contest – Announcement (2021)

The American Institute of Aeronautics and Astronautics (AIAA) Northern Ohio Section (NOS) is interested to know what future engineers, scientists, astronauts, pilots, and otherwise creative-minded individuals have to say about the future of air and space travel. Students will be asked to create a depiction of their vision of aerospace technology in the year 2050. The depiction should capture the future of air and/or space travel. The visual depiction of our future should be accompanied by an essay that addresses the following:

- Provides background about the student’s interest in aerospace
- Provides a description of the student’s vision depicted in the picture they provide
- Provides rationale as to why they think their vision will be fulfilled in the year 2050

The expectations will differ based on the age group of the students and the students will compete within their grade range. These grade ranges will be K-4, 5-8, and 9-12. Judges will take the students grade level into consideration.

Guidelines:

Grade K-4 students will be expected to provide a handmade picture (no computer aided design tools). The essay should not exceed 500 words. References to support their rationale for their vision are not expected but are welcome.

Grade 5-8 students will be expected to provide a handmade picture or utilize computer-aided design software to create the picture. All of the images used in the picture should be original (not copied and pasted from other sources). The essay should not exceed 1000 words. The student’s essays should demonstrate a good amount of thought has been put into their vision. The students should list references where applicable and use those references to support their vision.

Grade 9-12 students may provide a handmade picture or utilize computer-aided design software to create the picture. All of the images used in the picture should be original (not copied and pasted from other sources). The essay should not exceed 2500 words. It should be evident from the essay that a great deal of thought has been put into the vision. While the student’s vision is expected to be imaginative, their vision should be supported by reliable references from technical literature, news articles, statements from experts, and or evident trends in the aerospace industry and our society, etc. The information used from the references should support why the student’s vision could be feasible. Examples of references may include but are not limited to: articles from aerospace news outlets like Aviation Week and Aerospace America; conference and journal publications found at libraries or through online searches (ex. https://arc.aiaa.org/); aerospace related textbooks; statements or articles from news sources including comments from reputable experts and relevant companies (ex. Jim Bridenstine – former NASA administrator, Elon Musk – SpaceX CEO, Richard Branson – Virgin Galactic, Burt Rutan – innovative aerospace engineer and founder of Scaled Composite, NASA, SpaceX, Blue Origin, Pratt & Whitney, General Electric Aviation, Boeing, Lockheed Martin, Northrop Grumman, etc). Students may also use their observations of technological and societal trends, as well as historical reflection to make arguments for their vision. However, that should not be the entire basis for their rationale. Solid references like the ones mentioned prior should be used to strengthen their arguments. Wikipedia, online blogs, fictional works, and other less reputable sources should be avoided wherever
possible. While use of less reputable sources, such as these, is discouraged, in the event they are used they should only be used anecdotally to set the stage for proceeding arguments and/or to supplement information from better-grounded references.

**Prizes:**

1st, 2nd, and 3rd place winners will be chosen by AIAA NOS volunteer judges for each of the age/grade categories. 1st place winners will receive a cash award of $125. 2nd place winners will receive a cash award of $75. 3rd place winners will receive a cash award of $50. In addition, the winners will be given free admissions for themselves and up to three guests to the Great Lakes Science Center. They will be invited to the AIAA NOS annual awards picnic (typically in August) where they will be recognized and will have the opportunity to talk with engineers and scientists working in the aerospace field (this may change based on the state of the COVID-19 pandemic at that time of the event). Winners will also be featured in the AIAA NOS newsletter and a digital copy will be made available to the winners. Winners will be notified through the email they provide on the application form. The winners may also be asked for personal contact information at that time so that the relevant prizes can be mailed to them. The pictures and essays will be judged according to the criteria detailed below.

**Scoring Criteria:**

**K-4 – Picture (75%)**

- Creativity – Is it creative? Original? (40%)
- Neatness – Is it clear what you are trying to represent? (15%)
- Detail – How much detail is included? (10%)
- Scope – How broad or focused the vision is? (10%)

**K-4 – Essay (25%)**

- Students interest in aerospace (5%)
- Clear and concise description of the vision (10%)
- Rationale for the vision (10%)

**5-8 – Picture (50%)**

- Creativity – Is it creative? Original? (20%)
- Neatness – Is it clear what you are trying to represent? (10%)
- Detail – How much detail is included? (10%)
- Scope – How broad or focused the vision is? (10%)

**5-8 – Essay (50%)**

- Students interest in aerospace (10%)
- Clear and concise description of the vision (20%)
- Rationale for the vision (20%)

**9-12 – Picture (30%)**

- Creativity – Is it creative? Original? (10%)
- Neatness – Is it clear what you are trying to represent? (5%)
- Detail – How much detail is included? (5%)
- Scope – How broad or focused the vision is? (10%)

**9-12 – Essay (70%)**

- Students interest in aerospace (5%)
Clear and concise description of the vision (25%)
Rationale for the vision (40%)

To be considered for prizes, the students should submit their picture depicting their vision of future aerospace technology, and their essay to the AIAA NOS STEM K-12 chair via email (aiaanos.stem@gmail.com) no later than April 30th, 2021. The picture may be submitted as a JPEG or PDF file. The essay must be submitted as a PDF. The form attached to the end of this document should also be filled out and submitted. The form should be printed, signed, scanned, and saved as a PDF prior to sending it in. A picture of the student that can be used in the AIAA NOS newsletter would be appreciated but is not required. It is very much preferred that all of these documents be sent at the same time in a single email so that the submissions can be easily tracked and consolidated for judging. Winners will be notified by an email to the email address they provide on the submission form by no later than May 21st. The AIAA NOS looks forward to your submissions. For news and updates related to the contest, please refer to the AIAA NOS webpage (https://engage.aiaa.org/northernohio/STEMK12/yavc).

Check us out on social media and visit our websites:
Twitter: www.twitter.com/AIAANorthernOH
Facebook: www.facebook.com/AIAANOS/
AIAA Engage Community Website: https://engage.aiaa.org/northernohio
Website: https://aiaanos.org
Young Aerospace Visionaries Contest – Applicant Form (2021)

To be considered for prizes in the Young Aerospace Visionaries Contest, please fill out this form and email it to the American Institute of Aeronautics and Astronautics (AIAA) Northern Ohio Section (NOS) STEM K-12 chair (aiaanos.stem@gmail.com). Completion of the form will require the involvement of the student and a legal guardian. A teacher may be used in place of a legal guardian to attest to the integrity of the student’s submitted materials, but not to give permission for publications. Refusing to allow publication of the student’s name or work WILL NOT disqualify them from prizes. This form should be printed, filled out, signed, scanned, and saved as a PDF prior to sending. All materials should be submitted together in the same email. Required materials include this form, the picture created by the student, and the student’s essay. A picture of the student is optional. Each student may only submit one package (one picture, one essay, and one application form). The same student will not be selected for multiple awards. The student must be a resident of a county within the boundaries of the region which the AIAA NOS represents. A full list of the counties within the AIAA NOS region is on the following page.

Student’s Name:____________________________________

Student’s School (if homeschooled put homeschool):____________________________________

County of School or Residence:____________________________________

Student’s Grade Level:_____________________________________

Email Address:______________________________________ (*this is the email address that will be used to notify the winners of the contest – this may be the email address of the student or a legal guardian or teacher)

Parent/Guardian/Teacher confirmation of integrity:

I ___________________________ (printed name of a parent, guardian, or teacher) confirm that, to my knowledge, the student did not receive an excessive amount of help from myself or any other person. I also attest the information provided above is accurate.

Parent/Guardian/Teacher Signature:____________________________

Relation of the signee to the student (mother/father/guardian/teacher/etc.):__________________

Permission to publish confirmation:

I ___________________________ (printed name of legal parent or guardian) give the American Institute of Aeronautics and Astronautics Northern Ohio Section permission to mention my child and their submitted materials in publications and on the organization’s websites. If a picture of my child is provided, I also grant permission for that picture to be used in publications and on the organization’s websites.

Parent/Guardian Signature:____________________________
Counties covered by the AIAA NOS

*All of the counties are in the state of Ohio

- Ashland
- Ashtabula
- Carroll
- Columbiana
- Crawford
- Cuyahoga
- Defiance
- Erie
- Fulton
- Geauga
- Hancock
- Harrison
- Henry
- Holmes
- Huron
- Jefferson
- Lake
- Lucas
- Lorain
- Mahoning
- Medina
- Ottawa
- Paulding
- Portage
- Putnam
- Richland
- Sandusky
- Seneca
- Stark
- Summit
- Trumbull
- Tuscarawas
- Wayne
- Williams
- Wood
- Wyandot