



# STEAM COMPETITION GUIDELINES

## OFFICIAL RULES

- Important Dates

Competition opens -----	September 12, 2018
Competition closes -----	January. 24, 2019
Judging begins -----	January-March (TBD), 2019
Finalists are notified -----	April 02, 2019
Grand prize winners are announced -----	April 23, 2019

- Eligibility

Competition is open to middle-school and high-school female students only. Male students may enter but for an evaluation basis only. Astutia will assign each entrant or team entrant into the appropriate age group as follows: 11-14 and 15-18.

- How to Enter the Competition

Complete requested information about yourself and your Entry in the Registration section before submission. Your project entry can be submitted as an individual or as a group (team) comprised of up to two (2) persons. When entering the competition as a team, one person can submit the

entry to the website, but enter both contestants' names. Upon completion of registration you may begin working on your Entry. The Entry shall be submitted online and must follow the technical, creative, and requirements set out in these Official Rules and the Competition guidelines.

#### **ENTERING THE COMPETITION AS AN INDIVIDUAL:**

Enter your own name, email address, and submit your final entry.

#### **ENTERING THE COMPETITION AS A TEAM:**

All team members must meet the eligibility requirements of the competition. Team members may be comprised of entrants from different schools, cities and countries. A team may be comprised of entries from either age category. The oldest team member will determine age category placement.

## ● Topics

Entrants can select one of the following topics as a main topic:

- Earth & Environmental Sciences
- Inventions/Engineering
- Biology
- Chemistry
- Physics
- Computer Science
- Math
- Art linked with any of the topics above

#### **Entrants must include all required criteria below :**

Section 1: Abstract/Personal Engagement (100 words)

- A brief overview of your Entry, explaining why you are engaged with your topic.

Section 2: Hypothesis

- Describe the question that you are investigating or the problem that you are going to try to solve and the outcome that you expect.

Section 3: Material/Procedure including images

- Describe in detail how you carried out your experiment or tested your solution.

Section 4: Results/Data including graphs

- Observations gathered during your experiment or testing, presented clearly, including a description of any patterns or trends.

#### Section 5: Conclusion/Evaluation

- An explanation of how your experiment or testing answers your question, or why it fails to do so, and whether or not the outcome was as you expected.

#### Section 6: Bibliography, References and Acknowledgements

## ● Prize Overview

**Finalists:** Up to 10 (individual or team) finalists : Up to five (5) per age group (11-14 and 15-18).

**Grand Prize Winner:** One (individual or team) winner will be determined as the Grand Prize Winner.

**Second Prize Winner:** One (individual or team) winner will be determined as the Second Prize Winner.

**Third Prize Winner:** One (individual or team) winner will be determined as the Third Prize Winner.

## ● THE JUDGING PROCESS

Your (team) Entry will be judged in one of two age groups (11-14 and 15-18). Entries will be judged based on their competition groups as determined by the judges. There are two rounds of judging. The first round of judging occurs when the students' projects are reviewed by a panel of judges. Ten (individual or team) finalists (five of each age group) will be notified on April 02, 2019.

Final Winners will be announced at the Winner's Ceremony on April 23, 2019.

## ● JUDGING CRITERIA

The Entry requirements and the criteria below shall, collectively, be considered the "Criteria" for purposes of these Official Rules. A panel of scientists, professionals, former and current teachers of Atlanta International School will determine the manner and process by which Eligible Entries are assessed in their sole discretion.

#### Section 1: Abstract/Personal Engagement

An excellent summary will provide a clear, brief overview of the question or problem you are investigating, the stages of your project, what you set out to achieve and how far you

succeeded. Intention of the project must be relevant to current world issues. Describe yourself showing a passion for science or engineering and be able to present their ideas with confidence and clarity. Also include a description of the intention for the project submitted.

#### Section 2: Statement of the Problem and Hypothesis

Question or proposal should be creative and worded scientifically. The hypothesis must be testable with scientific research.

#### Section 3: Material/Procedure

Method / Testing demonstrate good experimental techniques or testing processes and describe their method in detail.

#### Section 4: Results/Data

Record relevant data, results or observations accurately, present them clearly and will describe patterns or trends supported by these.

#### Section 5: Conclusion / Evaluation

Explain how the experiment or testing answers the question or problem, or why it fails to do so and whether or not it supports the hypothesis.

#### Section 6: Bibliography, References and Acknowledgements

Acknowledge and provide clear references for sources of information that they have consulted and/or referenced and acknowledge any assistance received (e.g. to find equipment and materials, to stay safe or to use unfamiliar equipment or techniques).

#### **Determining the Finalists:**

A Judging Panel will review and select the entries submitted. The Criteria and maximum score for each entry section is as below:

- 1) Creativity and originality (3 marks)
- 2) Project Proposal (5 marks)
- 3) Scientific procedure and results (5 marks)
- 4) Discussion/Conclusions (5 marks)
- 5) Effective communication in written reports (5 marks)
- 6) Acknowledgement of sources and assistance received (2 marks)

**THE ASTUTIA JUDGING TEAM**

The judging team includes individuals who have significant knowledge and experiences in the general fields of research. The Entry requirements and the criteria shall be considered the “Criteria” for purposes of these Official Rules. The Judging Panel will determine the manner and process by which the entries are assessed in their sole discretion. The judge's decision is final.

## ● Prize details

**Grand Prize:** One Grand Prize Winner (individual or team) in each age group will receive:

- A scholarship from Astutia of US\$500+ (Teams will have to split the award)
  - 2019 Awards may go up to \$1000 depending on current funding potential
- Interview with the Head of Science Department at Atlanta International School
- Social Media shoutouts
- Astutia Front Page Announcement
- Winner’s Certificate
- A STEM Certificate from AIS (if applicable)
- Grand Prize winners’ names will be listed on the website
- A Jacket with Astutia logo
- A educational giveaway package

### **Second Prize**

- A scholarship from Astutia of US\$300 (Teams will have to split the award)
- Interview with the Head of Science Department at Atlanta International School
- Social Media shoutouts
- Astutia Front Page Announcement
- Winner’s Certificate
- A STEM Certificate from AIS (if applicable)
- Second Prize winners’ names will be listed on the website
- A Jacket with Astutia logo
- A StiKiDotz educational goodie bag

### **Third Prize**

- A scholarship from Astutia of US\$250 (Teams will have to split the award)
- Interview with the Head of Science Department at Atlanta International School
- Social Media shoutouts
- Astutia Front Page Announcement
- Winner’s Certificate
- A STEM Certificate from AIS (if applicable)
- Second Prize winners’ names will be listed on the website
- A Jacket with Astutia logo
- A StiKiDotz educational goodie bag

**Finalist Prizes:** All ten finalists will receive:

- A STEM Certificate from AIS (if applicable)
- Certificate of Participation
- Finalist winners' names will be listed on the website
- A T-shirt with Astutia logo
- A STickiDotz education goodie bag

**Participants:** All participants will receive:

- A STEM Certificate from Atlanta International School (if applicable)
- Certificate of Participation
- Astutia Pin

## **Sponsors:**

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## **GENERAL SAFETY GUIDELINES:**

The guidelines are for your general knowledge and are not a substitute for professional advice or common sense. Be sure to thoroughly research a scientific concept prior to performing your project.

1. Research the scientific concept thoroughly to understand any dangers involved in your demonstrations.
2. You cannot use (i) human blood/body fluids, (ii) animals, (iii) live ammunition, firearms, or explosives, (iv) poisonous plants, or (v) radioactive material.
3. Parts of the body are not to be placed in danger. Do not directly view the sun, infrared, or ultraviolet sources.
4. Do not taste any non food substance or food substance that has been subjected to possible contamination.
5. Dress safely for your presentation (e.g., gloves, eye protection, an apron, ear protection, safety shield, etc.).
6. Keep quantities of hazardous materials to a minimum, and always have waste containers for the disposal of such materials.
7. Comply with all local fire and safety rules and regulations; Use caution when heating all forms of matter; always have a fire extinguisher available.
8. Thoroughly check all motors to make sure all parts are sturdy and that safety nuts are securely fastened.
9. Always check to see if certain elements of your demonstration require you to obtain state and/or local permits. Always obtain the necessary permits prior to conducting your demonstration.
10. Always practice your demonstration before filming.
11. Consult and get advice from teachers or mentor.

**Be aware that:**

Projects that only involve the observation of animals in their natural environments, where no experimental or behavioral procedures are conducted AND in which the study does not affect the animal's health or well-being by causing stress or discomfort do not require prior review and approval. Projects that require harming or injuring living organisms are not acceptable in this competition.