



## Broadcom MASTERS<sup>®</sup>, a program of Society for Science Official Entry Rules 2020/2021 Academic Year

### I. Eligibility Requirements

1. To enter the competition, a student must have competed at a Broadcom MASTERS-affiliate science fair occurring between November 1, 2020 and June 1, 2021 and been named by the fair as a Broadcom MASTERS nominee on the list submitted to the Society.
2. A nominee must be a student enrolled in grades 6-8.
3. Former finalists who receive nominations may reapply, as long as they did not receive a 1<sup>st</sup> or 2<sup>nd</sup> place STEM award, Lemelson Award for Invention, Marconi/Samueli Award for Innovation, Robert Wood Johnson Award for Health Advancement, DoD STEM Talent Award, or the Samueli Foundation Prize.
4. Research conducted and presented at the science fair must have been properly supervised and approved according to the guidelines set forth by the Broadcom MASTERS-affiliate fair and must be in compliance with all local, state, and national laws and regulations. See Section VI: Science Fair Paperwork for more information.
5. Individual and team projects are eligible. Teams can have a maximum of three students for the project to qualify. See Section IV: Team Projects for more information.
6. Children of (i) Society for Science employees and Trustees, (ii) Broadcom Foundation officers, directors or anyone acting in a de facto officer role, (iii) Broadcom MASTERS evaluators and judges, and (iv) Broadcom Inc. employees with the title of vice president and above; are not eligible to enter the Broadcom MASTERS competition.

### II. General Requirements for Nominated Students

1. Each nominee may submit only one entry.
2. Each nominee must enter Broadcom MASTERS with the project that earned that student a nomination at their Society-affiliated fair. Students may include additional data in their Broadcom MASTERS application if data was collected using the same methods as in their nominated project between the time of their nomination and submitting the Broadcom MASTERS application.
3. Each nominee is required to complete ALL sections of the online application, which includes uploading the following required documents (you will be prompted to do so within the application):
  - a. **Permission Form** (REQUIRED, available online)
  - b. **Visual Aid** (REQUIRED)—See Section II for more information.
  - c. **Fair Paperwork** (as applicable)— See Section III for more information.
4. Each nominee must work independently on all application questions. For more information on Team Projects, please see Section IV.
5. Each nominee's project should only include up to one year's work and cannot have been previously entered in a Broadcom MASTERS or a Broadcom MASTERS-affiliate fair without meeting the continuation criteria. Projects that build on prior research must document that the additional research is a substantive expansion from prior work (e.g. testing a new variable or new line of investigation). Repetition of previous experimentation with the same methodology and research question, even with an increased sample size, is an example of an unacceptable continuation.
6. Each nominee must submit their entry by the final submission deadline of June 9, 2021. The Broadcom MASTERS application will open for nominees on February 1, 2021.

### III. Ethics Statement

Student researchers, as well as adults who have a role in their projects, are expected to maintain the highest ethical standards. These include, but are not limited to:

- **Integrity.** Honesty, objectivity, and avoidance of conflicts of interest are expected during every phase of the research. The project should reflect independent research done by the student(s) and represent only one year's work.
- **Legality.** Compliance with all federal, country, state and local laws is essential. All projects must be approved by a Scientific Review Committee (SRC), and when necessary must also be approved by an Institutional

Review Board (IRB), Institutional Animal Care and Use Committee (IACUC), and/or Institutional Biosafety Committee (IBC).

- **Respect for Confidentiality and Intellectual Property.** Confidential communications, as well as patents, copyrights, and other forms of intellectual property must be honored. Unpublished data, methods, or results may not be used without permission, and credit must be given to all contributions to research.
- **Stewardship of the Environment.** It is the responsibility of the researcher(s) and the adults involved to protect the environment and its organisms from harm. All projects involve some amount of risk. Everyone is expected to recognize the hazards, assess the risks, minimize them, and prepare for emergencies.
- **Animal Care.** Proper care and respect must be given to vertebrate animals. The guiding principles for the use of animals in research includes the following “Four R’s”: Replace, Reduce, Refine, Respect.
- **Human Participant Protection.** The highest priority is the health and well-being of the student researcher(s) and human participants.
- **Potentially Hazardous Biological Agents (PHBAs).** It is the responsibility of the student and adults involved in the project to conduct and document a risk assessment, and to safely handle and dispose of organisms and materials.

Scientific fraud and misconduct are not condoned at any level of research or competition. This includes plagiarism, forgery, use or presentation of other researcher’s work as one’s own and fabrication of data. Fraudulent projects will fail to qualify for competition in Broadcom MASTERS. Society for Science reserves the right to revoke recognition of a project subsequently found to have been fraudulent.

The student and parent or guardian agree to this ethics statement by signing the Permission form found in the application.

#### IV. Team Projects

1. Each nominated team member who wants to enter must complete the Broadcom MASTERS application individually to be eligible to go to the next phase of the competition.
  - a. Applications for teammates must NOT be identical (word-for-word) in content.
  - b. Responses in the Project Information (Part 2) section of the application may contain similar information but should reflect each student’s own understanding of their project.
  - c. Teammates must describe each member’s role in working on the research project in Part 2 of the application.
2. Members of a team project can still enter if their teammate(s) do not wish to enter.
3. The application is judged individually per student and considers factors in addition to the project summary. Therefore, it is possible that one team member will be named to the Top 300 MASTERS or 30 finalists and the other member(s) may not be.

#### V. Visual Aid Guidelines

Each nominee is required to submit a Visual Aid as a part of the application. The Visual Aid is for nominees to show any visuals related to their materials/methods, research data, and/or analysis used to support the findings of the project. Visual Aids must follow the guidelines below:

1. The Visual Aid must be no more than 2 pages, sized 8.5x11 inches each.
2. Each page should have no more than 3 visuals. Visuals can include figures, charts, tables, photos, and/or other graphics you may want to reference that represent your methods, data, analysis, and/or findings. We recommend using one page for your materials & methods (if needed), and one page for your data, analysis, and important findings.
3. The following are the format requirements for your visual aid:
  - a. The Visual Aid must be uploaded in the online application as a PDF.

- b. All text should be easily readable when viewing the entire page at once. Use a font size that is readable at 100% zoom. The smallest allowable font size is 16 pt.
  - c. Text should only be used for captions/descriptions of figures and titles. Keep titles and captions short. We recommend using bullet points and/or numbered list when possible.
  - d. Portrait or Landscape orientation are both acceptable.
4. The following are **not allowed** within your visual aid:
- a. Active hyperlinks to websites with additional information about your project.
  - b. Any videos or audio embedded within the Visual Aid PDF.
  - c. Any identifiable photographs of yourself and/or any human subjects. Photographs where faces are blurred or digitally covered in some way are acceptable.
  - d. Additional text for any questions within the application or other essays about your project.
  - e. Photograph of your physical project board or digital poster file with paragraphs of text and/or more than 3 visuals.

## VI. Science Fair Paperwork

Some projects, including those involving humans, vertebrate animals or potentially hazardous biological agents, require pre-approval and evidence of Scientific Rules Committee (SRC) or Institutional Review Board (IRB) approval. Many fairs use Regeneron ISEF forms to document approval, however some fairs have their own local equivalent.

**The Society accepts Regeneron ISEF forms or your science fair's alternative forms.**

If you no longer have your science fair paperwork at the time you are submitting your Broadcom MASTERS application, please request copies from your fair. If you absolutely cannot obtain your paperwork, you will need to upload an email or letter signed by the adult that approved your project (i.e. teacher, fair director). This letter should include what you worked with (human subjects, animals, microorganisms, hazardous chemicals/devises, etc.), what approvals you had, and/or what safety measures you took while conducting your research.

Visit [societyforscience.org/isef/international-rules](https://www.societyforscience.org/isef/international-rules) to view the International Rules & Guidelines for more information on projects requiring preapproval. Additional resources have also been provided to support students conducting research under the special circumstances created by the COVID-19 pandemic. See the "Guidance for Research Practices" section here: <https://www.societyforscience.org/isef/2021-resources/>.

## VII. Broadcom MASTERS Application – Additional Information

To open an application, visit <https://broadcommasters.smapply.org>. See below for helpful information about opening your application:

- You will need to enter your fair password (given to you by your fair director) to create an account.
- You may use your own email address or a parent/guardian's email address to open an account. If you use your own, you will need to add a parent or guardian as a Collaborator to your application. You will find instructions on how to do this within the application.
- Once you have opened your application, you may save your work and return as many times as you wish until June 9.

After opening an application, you will receive emails from Broadcom MASTERS with information and helpful resources throughout the spring. After the application deadline (June 9), we will send each entrant that has completed the application a Broadcom MASTERS t-shirt. Please allow 4-6 weeks for delivery.

**IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT US AT: [MASTERS@SOCIETYFORSCIENCE.ORG](mailto:MASTERS@SOCIETYFORSCIENCE.ORG)**