

Materials Choice Award 2016 Rules

WHAT IS THE MATERIALS CHOICE AWARD?

Do you and your fellow classmates like materials? The materials choice award is the go to competition to show your knowledge of “cool” material products and applications. This competition, established by the ASM Materials Education Foundation and the ASM Student Board Members, will focus on new, cutting-edge materials, applications, and products, and will allow young students to explain why they are passionate about a specific material.

ELIGIBILITY

This competition is open to middle school and high school students who are presently enrolled in a class taught by an individual who has attended an ASM Materials Camp for Teachers within the last three years. Each teacher may only field one team of five students for each class they teach. If a teacher has multiple class sections and wishes to enroll one team per class, the material and content should be significantly different. A registration form should be filled out for each team. Each team can only have one submission and each student can only serve on one team.

FORMAT OF COMPETITION

- **Competition will have 2 tiers.**
 - a. High School (Grades 9-12)
 - b. Middle School (Grades 6-8)
- **Round 1**
 - a. A picture of the material application along with a descriptive paragraph will be submitted to the ASM Foundation (see “Rules” below for details), then uploaded to the ASM Facebook page. Students **DO NOT** upload pictures to the Facebook Page themselves.
 - b. Caption should briefly describe the application being shown and how the material is used in this application.
- **Round 2**
 - a. Top 6 teams of each tier from Round 1 will move on to Round 2.
 - b. A 3 minute video presentation will be submitted to the ASM Foundation (see “Rules” below for details) describing the material, an application it is used for, and why it is awesome.
 - c. Video should also outline how this material and/or application is novel to further justify their selection.

RULES

- **Round 1**
 - a. Picture must be JPEG or TIFF file format.
 - b. File size cannot be over 20 MB.
 - c. Picture and caption information must be referenced (example can be seen in the picture and caption below). *Please keep your caption to 250 words*

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- d. Submit the image/caption to the online competition registration form located at <http://www.asminternational.org/foundation/about/awards/material-choice-award>.
- **Round 2**
 - a. Video must be MP4 or MPEG file format.
 - b. File size cannot be over 100 MB
 - c. Video cannot be over 3 minutes long (videos over 3 minutes will be disqualified)
 - d. Those teams that qualify for Round 2 will be sent submitting instructions.

SCORING

- **Points**
 - a. Do not carry over for each stage of the competition
 - b. Once team advances, points are zeroed
- **Round 1 (25 total)**
 - a. Applicant in each tier with top 3 most likes on the ASM Facebook page will move on to Round 2.
 - b. Judges pick their top three based on:
 - Image originality (5 points)
 - Justification for material selection (10 points)
 - Demonstration of Understanding Regarding Material (5 points)
 - Accuracy of Information (5 points)
- **Round 2 (100 total)**
 - a. Video Quality (15)
 - b. Video Creativity (25)
 - c. Presentability of Students (10)
 - d. Description of Material (25)
 - e. Application of Material (25)

DEADLINES

1. **December 15, 2016** - Submit picture and comment (top 5 teams in each tier from Round 1).
2. **January 18, 2017** - Advancing teams are notified.
3. **April 10, 2017** - Submit video presentation (top 6 teams in each tier from Round 2).

AWARDS

The top score in the oral presentation for each tier will receive a monetary prize of \$1,000. A minimum of \$500 is designated for classroom supplies. The remaining \$500 may be used for classroom supplies, rewards for participating students, or some combination of the two. Distribution of money should be specified in the initial application and students receiving prize

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money will receive the reward directly. Each team member who makes it to Round 2 will be given a certificate of participation.

CODE OF CONDUCT

- The team may receive guidance from teachers; however, picture and caption, and video presentation must be fully the work of the student teams.
- The teacher of the winning team for each tier must submit a report to ASM outlining how the award money will be spent towards material science related content (equipment, literature, or directly to students).

EXAMPLE – CHECK OUT THIS COOL MATERIAL



One of plutonium's isotopes, plutonium-238 dioxide, is used to power the Curiosity rover day and night. When this isotope decays it gives off heat which is then converted into energy using thermocouples. The mission of the Curiosity is to explore the Gale Crater on Mars to answer the question, "Could Mars have supported life?"

Information and picture from <http://mars.jpl.nasa.gov/msl/>

Check out our past winners!

The Titanium Skulls!

www.youtube.com/watch?v=8OBEhMdJf4&feature=youtu.be

The ORbeTaS!

www.youtube.com/watch?v=Lg8MK48vB2U&feature=youtu.be