

CHEMAGINATION DESCRIPTION AND RULES

MARM 2012

CONTEST OVERVIEW

High school students are asked to imagine that they are living 25 years in the future and have been invited to write an article for ChemMatters, a magazine for high school students that focuses on the role of chemistry in everyday life. The subject of the article is: *"Describe a recent breakthrough or innovation in chemistry (and/or its applications) that has improved the quality of people's lives today."* To view a sample ChemMatters magazine visit the national ACS website, acs.org, and look under Education.

In addition to the article, students are asked to design a cover for the magazine. The article must be written as if the student is living in the year 2037, looking back at innovations that have occurred since 2012. The innovation must fall into one of the following categories:

- * Alternative Energy Sources
- * Environment

- * Medicine/Healthcare
- * New Materials

A few examples of areas where development is expected are: nanometer-scale systems, energy efficiency, pollution prevention, green chemistry, sustainability, intelligent devices for sensing, proteomics, climate models, biopharmaceutical therapies, medical devices and/or implants and new energy sources.

Evaluation of the entry is based upon:

- (1) the written article which is submitted in advance, and
- (2) the presentation of the innovation on a self-standing display and interviews with judges (much like science fair judging).

TIE-IN TO NATIONAL STANDARDS

The grades 9-12 Content Standards of the National Science Education Standards support a multidisciplinary perspective and encourage teachers to provide opportunities for integrated/ multidisciplinary approaches to science teaching. In particular, the History and Nature of Science Standards support the need of students to understand that "science reflects its history and is an ongoing, changing enterprise." Engaging students in this project will give them the opportunity to see that science is a human endeavor which incorporates the ability to ask questions, think critically and logically, make decisions based on data, and communicate scientific arguments.

RULES

ARTICLES must:

- be written by a team of two or three students; each student may be on only one team.
- be no more than 1000 words (figure captions are not included in the limit).
- present the chemistry/scientific concepts/ideas/principles behind the innovation.
- describe the innovation and indicate how it has improved people's lives.
- present a "history" of the changes that had to occur in 25 years to develop this innovation.
- include drawings, diagrams, illustrations and descriptions of the chemistry and any technology involved in all key aspects of the innovation.
- cite a minimum of three technical references.
- include a cover design for the magazine. The cover design can be an original computer graphic or a free-hand drawing.

DISPLAYS must:

- be 24" deep, 40" wide and 48" tall or less, and be able to sit on a table, much like at a science fair.
- include the cover of the magazine.
- be a visual representation of the article's content with a minimum of text.
- include a list of references cited.

ATTENDANCE

- At least one member of the team must attend the contest to present the display and interview with the judges to be eligible for prizes.

SCORING

- Winners are selected by the judges based on the two scores the students have received (one for the article and one for the interview/poster).
- Criteria for scoring include scientific thought, creativity, clarity, thoroughness and teamwork.

ELIGIBILITY/REQUIREMENTS

- Each local section can submit up to four entries (1 per category).
- All students must be currently enrolled in an accredited high school or home school and be taking or have recently completed a grades 9-12 science class.
- Students and their parents are responsible for transportation to and from the meeting site.
- Sections must notify the contest coordinators in writing of their intent to participate in MARM Chemagination by January 6, 2012 and remain in communication with the Chemagination Co-Chairs during the time leading up to the contest.
- All entries become the property of the ACS and will not be acknowledged or returned.
- The ACS, its agents and contractors, are not responsible for lost, late, misdirected, or postage-due entries.
- Acceptance of the prize constitutes consent to use the winners' names, likenesses, and entries for editorial, advertising, and publicity purposes.
- Prizes are not transferable.
- Taxes, if any, are the sole responsibility of the winner.
- Participants will be asked to provide a Photo Release Form signed by a parent or guardian prior to attending the contest.

Key dates:

January 6, 2012	Local sections notify contest Coordinators of their intent to participate in 2012 MARM Chemagination.
May 9, 2012	Local sections submit number of participating teams, article titles and information on each student.
May 16, 2012	Teams submit their articles for pre-judging.
June 2, 2012	Chemagination competition takes place at UMBC, Baltimore, MD