EARTH DAY®
Ottawa

Website Creation

Earth Day Ottawa proudly presents

Solar Sprint

Website

Competition

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Thank you to Sponsors and Volunteers

Thank you to all of our sponsors and volunteers. Without them, this program would not be possible.

Use of this Manual

This Manual should be used in conjunction with the main Solar Sprint Manual and the Earth Day Ottawa web site.

www.earthdayottawa.ca

What Is a Solar Sprint Competition?

The Solar Sprint competition is:

1. A race among students using "home-made" solar powered model-size cars.

2. A competition among students to produce other components (such as a website and/or a PowerPoint Presentation and/or a digital video) as determined by the organizers.

These two main components make up the Solar Sprint competition. The actual extra components required for the competition and details of the competition can be found in the main Solar Sprint manual and in the registration information.

Why a Solar Sprint Competition?

The objectives of the Solar Sprint competition are:

i) to design and build a vehicle that will complete a race in the shortest possible time using the available power.

ii) to engage students in researching science principles relating to solar (renewable) energy so that they might gain an understanding and appreciation of renewable energy sources.

iii) to help students advance their computer skills by providing a useful avenue to generate a website, PowerPoint Presentation, digital video and/or other computer related activity that is educational in the doing and educational in the content.

iv) to provide students with an outlet to show and enhance their artistic abilities by providing an interesting project which requires graphics for a website or digital video or presentation and to provide a direct link to science and technology oriented tasks in the hope that they might gain an appreciation for science and technology.

v) to share with the wider community the potential for science and technology to open up new possibilities for the future for the benefit of the environment.

In short, the answer is . . . for

EDUCATION and the ENVIRONMENT

Who Can Compete?

Only students in **grades 6, 7 and 8** are allowed to compete and they compete with "home-made" solar powered model size cars and with other “vehicles” such as Websites, PowerPoint Presentations and digital video productions.

Home school students in the same age group and similar education level are also allowed to compete.

Solar Sprint School Website Guidelines

Website URL links (addresses) are to be submitted at least nine (9) days before race day.

The Website URL must be submitted by e-mail to the address given on the Earth Day Ottawa website www.earthdayottawa.ca/events/solar_sprint/index.htm by 5:00 pm (17:00 Hrs) on or before the Thursday that is **nine (9) days before race day.** You will be informed of the exact date in a separate notice. Late submissions will be viewed at the judges' discretion.

Description:

The purposes of the Solar Sprint Website competition are to share the knowledge gained about building solar powered cars with others, to help students learn about alternate energies (including solar) and the environment, to engage students in using the Internet and to help students learn more about computers and their applications.

The website competition can also be used to provide students with an outlet to express their **artistic and creative** abilities in producing various graphics and animations if desired for the web pages. This is the melding of art and science.

The Website part of the competition provides an excellent opportunity for students not wanting to design and build a car and not wanting to be on a race team but want to become involved in the event.

There will be prizes given for the top three websites as determined by the judges.

Website Content Guidelines:

The items below are some of the ideas that can be used as a guideline for the content or messages to be displayed in the websites. Other related information is also acceptable.

Design, Build and Test Process

- Knowledge gained about building solar powered cars
- Car Facts: Photos and videos of the cars produced, car dimensions, weights
- School Team members (using fictional names)
- Design process
- Document (text and photos) the progress of the teams at various stages of the design, building and testing of the cars
- Lessons learned
- Links to relevant websites including the Earth Day website: http://www.earthdayottawa.org/solarsprint.htm
- Suggestions of where to find more information
- Is the Website bilingual?

Solar Energy, Environmental Information

- What have you learned about solar energy?

- In which situations is solar power likely to be most practical?
- Advantages and disadvantages of solar power
- Applications or uses of solar powered systems and its place in society
- How solar energy might play a role in reducing our use of non-renewable resources
- How solar energy might play a role in reducing pollution
- Other alternative energy sources (non-renewable and renewable comparisons)
- Environmental impact of renewable and non-renewable energy sources
- Differences between solar electric and solar thermal systems
- Energy Conservation; things we can do to save energy

Generally, embedded videos in websites are viewed as part of the website. Any video that is part of a website may also be submitted as a video submission and judged with the other videos but a copy of it must be submitted in the video submission area.

The Evaluation Guidelines and Score Sheets for the Websites are on the **next two pages**.

Solar Sprint School Website Evaluation Guidelines and Score Sheet

School Name: _____

These guidelines are to help the judges rate the websites in the competition.

Students can use these guidelines to help them determine what content should be in their websites and how they would like their websites to appear. Ideas for website content are also presented on the previous 2 pages.

Website Content Evaluation (60 points maximum)

- A suggestion is to have a new page for each section

1. **Home Page** (4 points maximum):
    - School Name
    - Links to the various sections of your website should exist.
    - A "Last Updated" date or some other date code

2. **School Team** (2 points maximum):
    - School Team Members: Fictional team member names and roles they played. Photos of them may help enhance the website.

3. **Design Process** (12 points maximum):
    - Describe the design and build team's design process and document the progress, including ideas that were considered and rejected and why.

4. **Photos** (2 points maximum):
    - Photos of the car(s) at various stages of development.

5. **Car Design** (4 points maximum):
    - Car Facts: Photo(s) of car(s), dimensions of car(s), weight(s) of car(s). What can engineers do to make vehicles more efficient so they require less energy?

6. **Lessons Learned** (4 points maximum):
    - What important lessons did you learn during this activity? These could be things about the car, about working on a team, or something else you found important and would like to share.

7. **Web Links** (6 points maximum):
    - Websites should include links to relevant solar energy and environmental information
    - A link to the Earth Day Ottawa Solar Sprint website should be included. http://www.earthdayottawa.ca/ and http://www.earthdayottawa.ca/events_solar_sprint.htm

8. **Language(s)** (2 points maximum):
    - Is the website fully or partially bilingual?

9. **Solar Energy, Environmental Information** (16 points maximum):
    - Provide information about solar (renewable) energy and the environment.

10. **Accuracy** (8 points maximum):
    - Is the information presented accurate?

Website Content Points Summary _____

60 points maximum

Website Design Evaluation (60 points maximum)

1. **Originality** (8 points maximum):
    - Unique and exciting composition that catches the eye.

2. **Organization and Presentation** (18 points maximum):
    - Well thought out and planned to convey a message, information is neat and easy to read; photos or graphics are labelled clearly.

3. **Animation, Videos and Sounds** (4 points maximum):
    - Any animation, videos and sounds used in the websites should be appropriate and should not be distracting.

4. **Grammar and Spelling** (12 points maximum):
    - Should be perfect; vocabulary is to be age appropriate.

5. **"User-Friendly"** (18 points maximum):

    Is the site "user-friendly"? For example:
    - clear/easy navigation (4 points maximum)
    - consistent design look and feel (4 points maximum)
    - all links should work (4 points maximum)
    - the graphics load in a timely manner (4 points maximum)
    - contact information for feedback (4 points maximum)
    - good use of colours, backgrounds, pictures, text fonts (4 points maximum)

Website Design Points Summary _____

60 points maximum

Overall (Content + Design) Website Points Summary _____

Total 120 points maximum