### **Guidelines For Science Conference Abstracts**

When scientists organize a conference they advertise it to their fellow scientists and encourage them to submit their ideas for presentations. Scientists from all around will submit to the conference organizers an *abstract* of the presentation they are proposing to give at the conference. An abstract is a short summary of the work that will be reported on in the presentation. Abstracts are usually 150-250 words in length. An abstract should contain a brief introductory sentence or two that gives some background about the work being reported on. It should then summarize the work that was done and give the major findings from the work. The abstract should begin with a descriptive title for your proposed presentation. After the title, list the names of the authors involved in creating the proposed presentation along with information on their affiliations. The names are usually given as initials for first and (optionally) middle names followed by surnames.

The science conference organizers use the abstracts to select which scientists will get to present at the conference. Sometimes the organizers also chose what format the presentations will be in: oral or poster. Often the scientists chose for themselves which they would rather do. When all the decisions are made the abstracts are published in a program for the conference. Scientists attending the conference read the abstracts to decide which presentations they would like to attend.

Here are two examples of how an abstract for a science conference might look:

# *The Rate of Coffee Cooling is Fastest When it is Really Hot!* J.B. Smith, T. Elliot (our school, Idaho)

Without a source of heat, it is well known that coffee cools off after some time. We studied how fast coffee cools off as a function of how hot it is. With five different starting temperatures, we measured the temperature of the coffee as it cooled off until it was 2 degrees Fahrenheit above room temperature. The coffee was in a paper cup. The rate of cooling was fastest at the hottest starting temperature. We propose that this is a fundamental property of heat transfer and will discuss our data and future possible studies that can be done to test our idea of heat transfer.

# The Slingshot Effect: Using the Sun's Gravity To Create A Time Vortex While at Warp Speed F.O. Spock, M. Scott, J.T. Kirk (U.S.S Enterprise)

There are many ways to travel through time: using chronoton particles, stepping through the guardian of forever, using the orb of time, getting caught up in the Nexus, etc. One of the most simple, but not entirely accurate methods of time travel, is to use the gravitational well of the Sun to generate a time vortex while traveling at warp velocities in a parabolic orbit with a close perihelion approach. On three separate occasions the crew of the Starship Enterprise used this method to travel back in time to the 20<sup>th</sup> century. The first was entirely by accident, and the second two were intentional. Logical measures were taken to prevent interruptions in the timeline. The most recent time journey was for the purpose of gathering two humpback whales from San Francisco in the 1980s. The whales, George and Gracie, were successfully transported to the present where they have begun to repopulate the species. We will present the flight parameters and theoretical background for this fascinating method of time travel.

### **Guidelines For Science Conference Presentations**

Presentations usually are in one of two forms at a scientific conference: Oral or Poster. Your conference organizer(s) will decide in what format your team will present your research.

#### **Oral Presentations**

Five minutes will be allowed for the normal oral presentation and three minutes for open discussion and a question and answer period. Your presentation should include visuals to help your audience follow your presentation. The visuals can be overhead slides, or a computer presentation using software such as Microsoft PowerPoint. When preparing your presentation, try to use a maximum of three slides or transparencies for a five-minute talk. Slides should be uncluttered and easy to read; only essential information should be presented on the slides. A good rule of thumb: if you cannot read your slide without magnification, the lettering is too small to be read by your audience. Clearly label and explain all graphs or images presented. Practice a few times so the presentation fits comfortably into the five-minute slot. Have members of your science team help you during the practice to get you used to answering questions about your work.

#### **Posters**

The poster format affords the author(s) far more time and flexibility in presenting information. Posters are ideal for those using charts, graphs or detailed visual aids. The poster area serves as the social center of the meeting. Also, to avoid too many oral sessions running simultaneously, the number of oral presentation time slots is limited.

- ? Your presentation should fit within an approximate 4' wide x 3' tall area.
- ? You may use individual sheets to construct the poster or one large sheet.
- ? When planning your poster, remember to use bold graphs, photographs, figures, and tables.
- ? Include a title and the names of authors in large type. Text should be large enough to be legible from a distance of 3 to 4 feet (about 20 point font or 0.3 inches tall).
- ? Keep the poster simple and easy to read.
- ? Sections in the poster should include: Abstract, Materials and Methods, Results, and Discussion/Conclusions.

# Science Conference Project Sheet

Purpose: You will work with your science team in order to present the information you learned about the Sun, solar flares, and the magnetism of the Sun. Remember, you are a scientist who must report what you have discovered about the Sun to your colleagues in order to pass on your information and have others critique it for accuracy.

### **Checklist:**

	Review the rubric for the science conference. Know what is expected of you for this activity.
	Review the expectations for your abstract.
	Brainstorm with your science team about the information you want to include in your abstract
	Create your abstract and review for content, spelling, and grammar.
	Submit your abstract to your teacher.
	Once your teacher has decided what you will do, review the expectations for the poster and/or
oral presentation.	
	Work with your science team in order to meet all the expectations for your presentation.