



**38<sup>th</sup> MISSISSIPPI REGIONAL JUNIOR SCIENCE AND HUMANITIES SYMPOSIUM**  
**The University of Mississippi March 8-9, 2009**

The guidelines used for the Mississippi Regional Junior Science and Humanities Symposium are based on the National Junior Science and Humanities Symposium.

Students who present their research at the regional symposia must demonstrate through the oral presentation and the written abstract and the research paper the following:

1. their original, creative, and innovative contributions to a research problem;
2. an understanding of the scientific and/or technological principles underlying the research problem;
3. the appropriate research design, procedures, reproducibility of experimentation; and
4. the interpretation of the data and the conclusions.

During the symposium, there will be a teacher workshop regarding the instruction of research techniques.

Abstracts, papers, nomination forms, and applications are due no later than **Friday, February 20, 2009**. Please send only one copy of a student's abstract and paper. Please mail papers, abstracts, nominations forms, and applications to the following address:

Mississippi Regional Junior Science and Humanities Symposium  
Office of High School Academic Competitions  
Post Office Box 9  
University, Mississippi 38677

The student's photograph in digital format (file is named student's name) should be e-mailed to [umacdcom@olemiss.edu](mailto:umacdcom@olemiss.edu), and the student's abstract (file is named student's name and paper's name) also should be e-mailed as a Microsoft word file to [umacdcom@olemiss.edu](mailto:umacdcom@olemiss.edu). Each presenter's photograph and abstract will be included in the Symposium's program.

The papers that will be presented at the symposium will be announced the first week of March. For additional information, please go to [http://www.olemiss.edu/depts/pharmacy/medicinal\\_chemistry/JSHS.html](http://www.olemiss.edu/depts/pharmacy/medicinal_chemistry/JSHS.html).



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## ABSTRACT SUBMISSION

**The following guidelines are from the National Junior Science and Humanities Symposium with a few modifications for our regional competition.**

The abstract should be a summary of the research and should accurately convey the essential nature of the research conducted and the most significant conclusions reached. One purpose of the abstract is to attract the interest and curiosity of the non-specialist reader and thus encourage exchange, discussion, and elaboration between various authors and between authors and readers.

**The guidelines for your abstract are as follows:**

1. length should not exceed 200 words,
2. 1 inch margins,
3. 12 point Times or Times New Roman font,
4. omit a description of your procedure if possible or identify the procedure in only broad terms not in detail: describe the process – do not give a series of specific steps;
5. state in a concise fashion the results obtained to date or the conclusions reached;
6. do not report the work of others although contrasts in results may be cited if pertinent to the report;
7. proofread your work for correct spelling and correct sentence structure; and
8. give proper credit for financial sponsorship by including the following statement:  
Research supported by...
9. The header preceding the abstract body must include the following
  1. title of the research;
  2. author's name or authors' names;
  3. high school, high school city, high school state;
  4. teacher/mentor/sponsor's name and his or her organization –
  5. include one line of space between the heading and the body of the abstract.



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## RESEARCH PAPER SUBMISSION

**The following guidelines are from the National Junior Science and Humanities Symposium with a few modifications for our regional competition.**

Papers should reflect results of original work on subjects relating to physics, chemistry, biology, engineering, mathematics, or other scientifically-related subjects and should rely on previously published literature only for background and comparative purposes.

The guidelines for your research paper are as follows:

1. a minimum of 5-6 pages and a maximum of 20 pages including appendices,
2. it must be double spaced
3. the pages should be numbered
4. printing on only one side of each sheet of paper
5. it must have 1 inch margins,
6. you must use a 12 point Times or Times New Roman font,
7. you should use past tense and third person
8. your graphs, tables, diagrams, charts, or other graphic representation should be understandable
9. your illustrations in the research paper should be in the form of line drawings or black and white glossy photographs
10. you must appropriately cite all of your references
11. your bibliography should include all of your cited references as well as any other sources used
12. proofread your work for correct spelling and correct sentence structure

A recommended outline for the research paper includes the following:

1. a title page, or cover page stating the student's name, school address, and title of the research;
2. acknowledgement of major assistance received;
3. table of contents;
4. if applicable the following statement: The research involving non-human vertebrates or human subjects was conducted under the supervision of an experienced teacher or researcher and followed state and federal regulatory guidance applicable to the human and ethical conduct of such research;
5. introduction;
6. materials and methods;
7. results (data or findings);
8. discussion and conclusions;
9. references, or literature cited; and
10. if necessary appendices.





## ORAL PRESENTATIONS

**The following guidelines are from the National Junior Science and Humanities Symposium with a few modifications for our regional competition.**

### **Session Timing and Conduct**

The research presentation may not exceed 12 minutes, and it is followed by a maximum 6-minute question period. A session moderator will aid the student speaker in maintaining this schedule and in fielding questions from the audience. The procedure for maintaining the time includes the 10-minute signal for the student and the 12-minute signal. At the 12-minute point, the student speaker must stop the presentation even if he or she has not finished.

Set-up time for the presentation is a maximum of 2 minutes. This set-up time is not included in the presentation time.

Following the presentation, the session moderator will ask for the audience questions. The speaker may entertain questions while the exchange appears interesting and relevant. Questions intended to harass the student speakers will not be allowed by the session moderator. The speaker should repeat a question before answering so the audience may understand the entire dialogue.

### **Suggestions for the Oral Presentations**

Remember that you are the expert. No one in the audience knows as much about your research investigation as you do. Therefore, remember to explain your research in enough detail so the audience will understand what you did, how you did it, and what you learned. Whenever possible, avoid jargon or unnecessary terminology. If it is essential to use specialized terms, then you should explain the specialized term briefly. Give your audience enough time to understand what you are trying to convey.

Graphs, tables and other representation may help to explain your results. Keep them simple and uncluttered. Focus on important information. For example, remember to name the variables on both axes of your graph and to state the significance of the position and the shape of the graph line.

## ORAL PRESENTATIONS continued

### **Suggestions for the Oral Presentations continued**

Deliver your presentation at a comfortable pace. Do not read your presentation to your audience. You also should not memorize your presentation and then delivery it in a rote fashion. Instead, learn your presentation. It helps to practice your presentation before a non-specialized audience. Practice will help perfect the presentation and the timing. Do listen to the advice of your non-specialized audience but also get help from a teacher or other advisors as needed. Look at your research and ask yourself what questions the audience could ask regarding my presentation. Prepare for these questions. Your teacher can help you with this process. Even if your audience does not ask these questions, this procedure will help you to better understand your research.

### **Use of Audio Visuals**

There will be available a LCD projector and a projection screen in each session. Additionally, there will be a PC-based computer with a CD-Rom and floppy drive configured with Microsoft 2000 PowerPoint and Adobe Acrobat as well as an overhead projector.

Equipment operators will not be available in each session; however, students may enlist the help of a teacher or a fellow student.

No written handouts are permitted; however, a research apparatus may be used if it is integral to the presentation and only if the apparatus is hand-held.

You may use PowerPoint for your slide presentation. It is recommended that in addition to text that graphs be used as a part of the presentation.





## RESEARCH INVOLVING NON-HUMAN VERTEBRATES OR HUMAN SUBJECTS

**The following guidelines are from the National Junior Science and Humanities Symposium with a few modifications for our regional competition.**

Research involving non-human vertebrates or human subjects must be conducted under the supervision of an experienced teacher or research and follow state and federal regulatory guidance applicable to the humane and ethical conduct of such research. This statement must be acknowledged in the student's written report.

The Junior Science and Humanities Symposium has adopted the following statement on animal experimentation in accordance with the *Guiding Principles in the Care and Use of Animals* as approved by the Council of the American Physiological Society.

1. Only animals that are lawfully acquired shall be used in...[experimentation] and their retention and use shall be in every case in strict compliance with [Mississippi] state and local laws and regulations.
2. Animals [used in experimentation] must receive every consideration for their bodily comfort; they must be kindly treated, properly fed and their surroundings kept in a sanitary condition.
3. Appropriate anesthetics must be used to eliminate sensibility to pain during operative procedures. Where recovery from anesthesia is necessary during the study, acceptable techniques to minimize pain must be followed. Curarizing agents are not anesthetics. Where the study does not require recovery from anesthesia, the animal must be killed in a humane manner at the conclusion of the observations.
4. The postoperative care of animals shall be such as to minimize discomfort and pain, and in any case shall be equivalent to accepted practices in schools of Veterinary Medicine.
5. When animals are used by students for their education or the advancement of science, such work shall be under the direct supervision of an experienced teacher or investigator.

