

Department of Mathematics, Science, and Technology Education
Box 7801
North Carolina State University

January 24, 2008

Dear MAZE DAY Participant and Parents,

The purpose of this letter is to invite you to participate in a research study "Conceptions of Scale in Science" designed to investigate conceptions of scale at different sizes. Science covers a vast amount of ideas and topics, but there are some concepts that can be used to make sense of a wide array of scientific ideas; one of those powerful concepts is scale. Scientists who use microscopes to experiment with very small objects use small scale and astronomers who study stars and planets very far away think about very large scale. Notions of scale are becoming increasingly important, and to improve the way that science is taught in schools, more information is needed about what people know about scale. Middle and high school participants in the UNC-CH MAZE Days are being invited to participate in this study, which will take place during your visit to UNC-CH.

We would like you to participate in this study. Participation involves completing in Metric Olympics, a fun event that takes about 20 minutes. During the Olympic event you will be asked to estimate the sizes and distances of approximately 10 objects. With this information from you and other students, we hope to learn how you estimate the length of objects, how you learned about estimation, and how much you know about units of measurement. Medals will be awarded for accuracy in this Olympic event.

Participation is entirely voluntary and a decision whether or not to participate will in no way impact your grade or standing in school. Parent permission is required for students to participate, but you can decide for yourself whether or not to participate even if your parent gives permission. There should be no risks to you from this research. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be returned to you or destroyed at your request.

All information gathered during this study will be used only for this research study and only the researchers will have access to the data. No identifying names will be used during any of the data reporting. The information gained from this research can help teachers and researchers understand how to better teach science by focusing on important ideas that link all of science together.

At the conclusion of the study, a summary of the results will be made available to interested participants. Should you have any questions or desire further information, please call Dr. Gail Jones at (919) 515-4053. There are two copies of this consent letter. Please sign both copies, save one copy for your files, and return one to me. Thank you in advance for your cooperation and support.

Sincerely,

Gail Jones, Professor, Science Education

Note: If you have questions at any time about the study or the procedures, you may contact the researcher, Dr. Gail Jones, at NCSU, Box 7801, Raleigh, NC 27695-7801, or 515-4053. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. David Kaber, Chair of the NCSU IRB for the Use of Human Subjects in Research Committee, Box 7514, NCSU Campus (919/515-3086) or Mr. Matthew Ronning, Assistant Vice Chancellor, Research Administration, Box 7514, NCSU Campus (919/513-2148)

Please indicate whether or not you wish to participate in the project “Conceptions of Scale in Science” by checking a statement below, signing your name, and returning the signed copy of this 2-page letter to your teacher or to the MAZE Day organizers. Both the student and the parent must return the signed permission form before a student can participate in this project.

Please check one of the following:

PARENT PERMISSION

I DO NOT want my child to participate in this research study.

I am willing for my child to participate in this research.

Signature

Date

STUDENT PERMISSION

I DO NOT want to participate in this research project.

I am willing to participate in this research. I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may withdraw at any time.

Signature

Date

Name (printed)