Maria Montessori Academy 6th Annual Science Fair

Dear Parents,

We are very happy to announce that MMA will be having our sixth annual Science Fair on February 17-18, 2016. The Elementary Science Fair will include the 4th and 5th grades and will be held on the 17th of February 2016. The Jr. High Fair will include grades 6 and 8 and will be held on the 18th (the 7th and 9th will not be participating this year except on an individual basis). The purpose of these fairs is to help upper elementary and Jr. High students develop an appreciation for the scientific process and an understanding that science is not just a collection or memorization of facts, but an ongoing process of discovery encompassing all areas of life. By doing a science fair project your child will experience an opportunity to see how dynamic the field of science can be and that the fun of learning is in the doing. They will also strengthen their science skills by learning how to identify problems, ask questions, conduct research on their topic, collect and analyze data, draw conclusions and communicate their findings. These are valuable life-long skills that will help your child in all aspects of their lives.

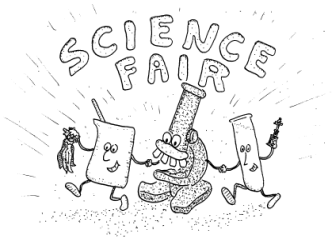
The project is **mandatory for all upper elementary children and 8th grade students.** We have attached a time-line of required actions that will help keep your child on track. This project is designed to be done at home and we encourage your support and assistance to your child as they go through the process. Your child's teacher has been provided supplementary materials that can help guide the students with their projects and will be keeping track of their progress and deadlines. Your child will need a journal to use as their lab book (4th and 5th grade may use small spiral notebooks), the materials needed for the project of their choice and a standard size display board. Additional guidance will be provided to 6-8th graders who wish to compete for the Ritchey Science and Engineering Fair concerning their display board.

There is a wealth of information on the internet that your child can access for help. One of the best is **Sciencebuddies.com.** Although this is your child's project, they may receive guidance and assistance from you or a mentor. They may work with a partner and the partner may be a student in another class as long both children have received approval from their teachers. **Sixth - eighth graders may only partner will other 6-8 graders** due to the fact that they will be judged using middle school criteria and may be eligible to compete at the Ritchey Engineering and Science Fair held in March of 2016.

We will need twice the support that we had last year and are actively looking for volunteers to help out with our fair. There is a range of volunteer opportunities from judging, fair coordinators, scorekeepers, set-up clean-up, refreshments, student assisting, mentoring and more. If you are interest please email me at pdugan@mariamontessoriacademy.org. Make sure to include your full name, telephone, email and preferences.

One final note, please be aware that a science project is not a demonstration of a model but a testable hypothesis designed to answer a specific question or an engineering problem. We are looking forward to a fun, rewarding and exciting event!

Paula Dugan
Science Fair Coordinator



MMA Science Fair
Timeline of Required Actions

1. **Topic Selection and Question**(For help go to *science buddies.com* Topic Selection Wizard under student - project help – topic selection wizard) Due: Nov 2
2. **Research Plan** (This is a roadmap of the research that needs to be answered, 6th -8th graders must have at minimum of 3 on and offline sources) Due: Nov 16
3. **Variables and Hypothesis** (An explanation of which factors will be changed while conducting the experiment and a hypothesis) Due: Nov 30
4. **Materials and Procedures** (A detailed list of the materials that will be used to conduct the experiment and detailed steps that will be followed.) Due: Dec 18
5. **Conducting the Experiment** (Students should run a minimum of 3 trials of their experiment and record results in lab book) Due: open
6. **Data Analysis and Graphs** (This is the analysis of the experimental data. A summary of the findings of the experiment). Due: Jan 29
7. **Research Paper** (The purpose of the research paper is to provide information to help understand why the experiment turns out the way it does. It should include: the history of similar experiments or inventions; definitions of all important words and concepts that describe the experiment; answers to all the background research plan questions; mathematical formulas, if needed. Some teachers may elect to make this optional for 4th and 5th grade students) Due: Feb 12
8. **Final Report** (A report that collects all the above written assignments in one place plus a short abstract of the project). Due: Feb 16
9. **Display Board** (The final project board that will be displayed at the fair, some teachers may elect to review the board prior to the fair). Due: Feb 17-18
10. **Science Fair** (Students will bring their project to the school) Due: Feb 17-18

Please note that these are <u>recommended due dates</u> to help your child plan out a well - researched and conducted experiment; individual teachers may adjust some of these due dates to meet the needs of their specific class or your child.