Mary E. Silveira

SCIENCE FAIR NIGHT

Marin County Science Fair
and
MES Unconventional Science Fair Projects on Display

Wednesday, February 28, 2018

6:30-8:00p.m

Multi-Purpose Room

SCIENCE FAIR

Dear 4th and 5th Grade Families,

It's time again to start thinking about science fair projects. Every Silveira fourth and fifth grade student is required to complete a Science Fair project where they will conduct an experiment using the scientific method. Students will develop an original hypothesis, test it, and record and report the results. They cannot do a project based on an experiment that they have already tested. Students may choose to work on any topic in Physical Science, Life Science, Behavioral Science, Math and Computers, Environmental Sciences and Engineering. Students should pick projects that they are interested in learning more about and can stay excited about through the course of the project. Students can choose to work as individuals or teams of two. However, if students choose to work as a pair, both students must be in the same class. That is, two students may work together if they are both in Mrs. Madden's class, but they would not be able to work together if one student was in Mr. Malaret's class and the other student was in Ms. Ramirez' class. Students will need to do a majority of the work at home, but teachers and support staff will be available to advise students. Teachers will be checking in with students to monitor their progress. All projects will be on display at **Science Fair Night on February 28, 2018.** Students will need to be present on Science Fair Night to explain their experiment to visitors and to monitor the safe keeping of their display. Students must choose to present their findings either by participating in the Marin County Science Fair process or by participating in the MES Unconventional Science Fair.

The Marin County Science Fair requires student work to be judged at the school level, then if selected, the project may move on to be judged at the county level. The projects will be judged at the school level on February 28, 2018 before the MES Science Fair Night. If selected to move on from the school level, then the project will be judged again for the Marin County Science Fair. This judging will take place on April 2, 2017 and the Fair will be open to the public on April 3-5, 2017 at Bay Model Visitor Center, 2100 Bridgeway Blvd., Sausalito. There will be an awards presentation on April 5, 2018 from 6:30pm – 8:30pm. We are limited as far as the number of projects we can send for county judging, which means only the top ranked projects from MES will move on. Students must create a tri-fold board, which displays all the required elements for county judging: title, question, hypothesis, research, materials, procedure, data collection, results, abstract, conclusion, and references. Collections

and Models are not permitted. Tri-fold boards will be provided by MES. In addition to school and county judging, the student's teacher will also grade projects. Students who choose this option must attend a mandatory informational meeting during lunch in Ms. Hutchens' room on **Monday, January 22, 2018**. At that time, students will be given additional paperwork for the Marin County Fair. Students who choose to be considered for county judging must meet all the county project rules and paperwork deadlines. No exceptions.

The MES Unconventional Science Fair also requires students to complete an experiment following the scientific method. However, a tri-fold board is not required for students who choose this option unless they want to display their findings using a tri-fold board. Tri-fold boards will be provided by MES if requested. Other supplies needed are to be supplied by the student. Students who participate in the MES Unconventional Science Fair may choose to present their findings in other creative ways: poetry, film, dance, comic strip, rap/song, essay, posters, animation, books, art, mind craft design, public service announcement, power point/keynote, model, etc. Creative interpretations are valued and encouraged. The display/presentation must include all of the following information: title, question, hypothesis, materials, procedure, data collection, results, conclusion, and references. Student space will be limited to a 4' X 1' table area. However, if more table, wall, floor, or stage space is needed, please indicate this on the form and every effort will be made to accommodate the project. The MES Unconventional Science Fair projects will be graded by the teachers, but will not be submitted for county judging and are not eligible to move on for the county competition.

The Science Fair Entry Form, rules, guidelines, and project idea websites are attached. The Science Fair Entry Form including the project title must be returned to your classroom teacher no later than Friday, January 26, 2018. Students are highly encouraged to start their projects early.

If you have any questions, please contact Ms. Hutchens regarding the Marin County Science Fair. Questions regarding the MES Unconditional Science Fair/Science Fair Night may be directed to Mrs. Tanner or Mrs. Madden.

Thank you,
Monica Ramirez, Alison Hutchens, Ed Malaret, Karen Madden,
Kerrie Nichols, and Gina Tanner

Suggested Science Fair Websites

1. California State Science Fair: Read about this science fair, which has been going on since 1952! You can learn how to enter, get help with your own project, or see a directory of past projects.
http://www.usc.edu/CSSF/

2. Science Fair Adventure - Science fair ideas for many grade levels.
http://www.sciencefairadventure.com/

3. Science Buddies: Use the topic selection wizard to help you figure out what science projects interest you most. Once you have a topic, get help doing research, setting up the experiments, and completing them.
http://www.sciencebuddies.org/

4. Science Fair Central: Includes cool project ideas, a science fair handbook, reviews of student experiments, and more from Discovery Channel School.
discoveryeducation.com/sciencefaircentral/

5. Science Fair Project Resource Guide: Samples, ideas, magazines, resources, and more. Includes a list of sites that explain the Scientific Method.
http://www.ipl.org/div/kidspace/projectguide/

6. Super Science Fair Projects: Guide to projects, topics, experiments, and tips for successfully completing a science project, including the six steps of the Scientific Method.
http://www.super-science-fair-projects.com/

7. What Makes a Good Science Fair Project?: Short guide written by a group of experienced judges for the California State Science Fair.
http://www.usc.edu/CSSF/Resources/Good_Project.html

Rules:

1. Marin County Fair & MES Fair: Projects must be durable with movable parts firmly attached.

2. Marin County Fair & MES Fair: Dangerous chemicals or drugs, open flames and explosives must not be exhibited.

3. Marin County Fair & MES Fair: Do not include hypodermic needles, syringes, or any other object that may be a potential danger.

4. Marin County Fair: No liquids of any kind should be in the exhibit. If water is part of the experiment, then the apparatus must be displayed without water. If there are bottles of sample liquids in the exhibit, they must be empty.

5. Marin County Fair: Food samples may not be included in the exhibit. Plastic food, photos or drawings may be used in their place.

6. Marin County Fair & MES Fair: No Petri dishes or test tubes with gel and bacterial colonies may be displayed. Photographs of the results can be used.

7. Marin County Fair & MES Fair: If gravel, sand and/or dirt are in the display, they must be tightly enclosed and sealed securely.

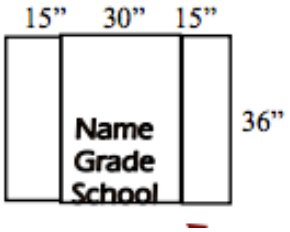
8. Marin County Fair: If plants are in the exhibit, they should be completely covered and sealed, including the pot and soil.

9. Marin County Fair & MES Fair: Mounted birds, mammals, or any stuffed specimens will not be allowed because of the risk of insect infestation.

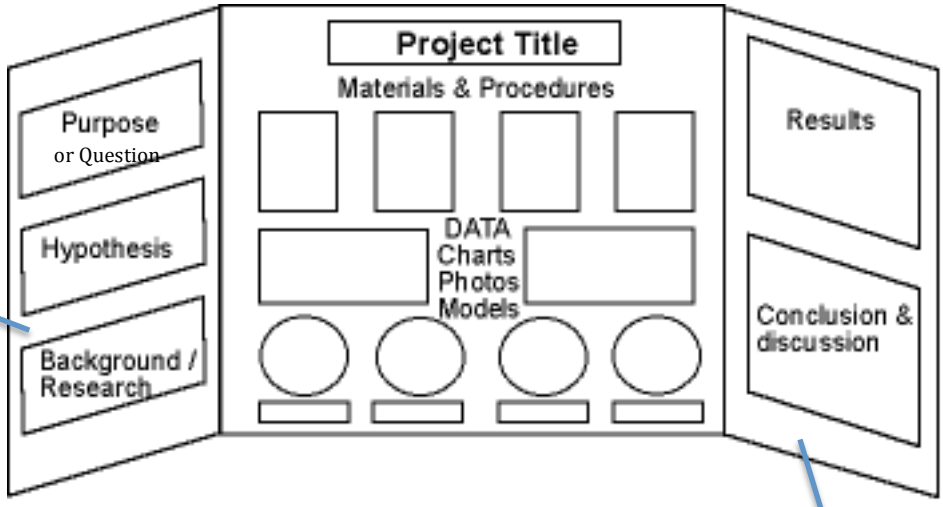
10. Marin County Fair & MES Fair: Live animals are not permitted in the project exhibits.

SCIENCE FAIR DISPLAY BOARD/PRESENTATION

Marin County Science Fair - The function of a tri-fold board is to inform judges and visitors, but also to attract as many spectators as possible. To make it easy for spectators and judges to understand your research, you want your tri-fold board to be clear and eye-catching. Make headings stand out. Use neat, colorful headings, charts, and graphs. You might want to include photographs of important parts/phases in your investigation. You are free to choose your colors and format. Projects will be displayed on tables. Projects that exceed the dimensions below will not be accepted. Each child will receive a display board from MES. Write your name, grade, and school on the back of your project, near the bottom in the middle section.



Back of Board



Abstract would go here

References would go here.

Remember to keep the following information in mind while working on your project:

- You, not your parents, must do the work completed on your project.
- You may seek advice from family, friends, or whatever resources available, but you must do the work.
- The Marin County Science Fair Exhibit is open to the public – do not leave valuable items with your project.
- The Marin County Science Fair project must stand by itself and cannot be fastened to the table or walls.
- The Marin County Science Fair project must be firmly attached to the display board.
- For the Marin County Science Fair you may use photographs to document any equipment that has been used. However, photographs must not contain face(s) of student(s) or family members.
- Give your project a short descriptive title; use the same title that you submitted on your form.

The MES Unconventional Science Fair – Your presentation must creatively include all the following information, except the abstract and the research sections. You will not be confined to a tri-fold board unless you choose to use one. Other ways to display or present your project may be through poetry, film, dance, comic strip, rap/song, essay, posters, animation, books, art, mind craft design, public service announcement, power point/keynote, model, etc. If your presentation uses personal technology equipment or other equipment of any kind, you are responsible for the safety of the equipment. Write your name, grade, and teacher on your project.
Remember to keep the following information in mind while working on your project:

- You, not your parents, must complete the work on your project.
- You may seek advice from family, friends, or whatever resources available, but you must do the work.
- You and/or your partner MUST stand next to your project during the entire MES Science Fair Night. Your job will be to explain your project to all the people who want to see it.

Science Experiment Form

*Use this form for both Marin County Science Fair Projects and MES Unconventional Science Fair Projects

This form is to help you stay organized with your project. You may use this form or extra paper. You will need to turn in different parts of the project at different times, so your teacher can check your progress. If you decide to keyboard your information or need additional pages, staple your work to the back of this form. This form will be returned to you after it has been checked.

Name of Scientist(s)

_____

Science Fair Entry Form (including Project Title): Due Friday, January 27, 2017

The title should be written on your entry form. Your title is an extremely important attention-grabber. A good title should simply and accurately present your research. Avoid making your title too long. Write several titles on paper and think about them for a few days before making a final decision. The title should make the casual observer want to know more.

Write Your Project Title Here:_____

Question: Due Friday, February 2, 2018

This is a question or statement showing what you are trying to find out. Formulate your question very specific, including the subjects to be tested and the variables you will be measuring. What do you want to find out?

_____

_____

_____

Hypothesis: Due Friday, February 2, 2018

The hypothesis is a prediction of the outcome you expect from your investigation. Just as in your question, formulate the hypothesis very explicitly. Include the subjects to be tested, the experimental variable you will change and the variable you will measure.

Most of the time a hypothesis is written like this:

"If [I do this] _____, then [this]_____will happen."

Your hypothesis should be something that you can actually test, what's called a **testable** hypothesis. In other words, you need to be able to measure both "what you do" and "what will happen." In other words, what do you think will happen?

Research: Due Friday, February 9, 2018 for Marin County Science Fair entries. The research section is not required to be displayed for the MES Unconventional Science Fair. However, you are expected to research your topic.
For Marin County Science Fair entries, your research section should include information about the subject area, special materials, or products that were used**.** Often times when you start learning about a new topic, many more questions are brought up that you might want to research. It's also nice to have some background information on the topic you are investigating. In this section remember to tell what you learned about your topic. **(Minimum of ½ page, maximum of 2 pages).**

Materials: Due Friday, February 9, 2018
Include all the materials needed for your project: equipment, chemicals, foods, and any other materials used during your experiment. Indicate the amount you used of each, using proper units. **Do not number them.**

Procedure: Due Friday, February 9, 2018
Tell exactly what you did to test your hypothesis step by step. Give all the details in measured amounts. Number each step. If you repeat something, write " Repeat Step(s) #_____". Use the back of this page if necessary.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Data Collection: Due Friday, February 16, 2018
Record your tests here: You can make graphs, drawings, charts, or use photos. You **may not** include faces of people in your photos.

Result(s): Due Friday, February 16, 2018
Write a paragraph or two to explain what actually happened. Refer to your graphs, drawings, charts, or photos.

_____
_____
_____
_____
_____
_____
_____
_____

Abstract: Due Friday, February 16, 2018 for Marin County Science Fair entries only. Not required for MES Unconventional Science Fair entries.

An abstract is a summary, which includes the purpose of your project, a brief description of the experiment, and a significant conclusion. Ask yourself, "What is the purpose of my experiment? What will I do to test my hypothesis? What were my results? What did I learn? **Must be less than 200 words.**

Conclusion(s): Due Friday, February 16, 2018
State whether the results matched your hypothesis. If they do not match, just tell why you think they did not match. Also, tell what you learned by doing this experiment. Ask yourself, "Was my hypothesis correct? What did I learn?"

References: Due Friday, February 16, 2018
List all references, including people, books, websites, etc. Use proper bibliography format.

Science Fair Project Time Line

Thursday, January 11, 2018 - 4th & 5th Grade Informational Meeting
This meeting will be held in the MPR from 8:30am – 9:00am. General Science Fair information will be shared with students. Parents are invited to attend.

Monday, January 22, 2018- **Marin County Science Fair Meeting** This meeting will be held during lunch & lunch recess in Ms. Hutchens' room. Bring your lunch with you. If you are interested in entering the Marin County Science Fair you must attend this meeting. Attendance is mandatory.

Friday, January 26, 2018 – Science Fair Entry Form is due to your classroom teacher.

Friday, February 2, 2018- **Question and Hypothesis** are due to classroom teacher.

Friday, February 9, 2018- **Research (Research is due for Marin County Science Fair entries only, not required for MES Unconventional Science Fair projects), Materials, and Procedure** are due to classroom teacher.

Friday, February 16 2018- **Data Collection, Results, Abstract (An Abstract is due for Marin County Science Fair entries only, not required for MES Unconventional Science Fair Projects), Conclusion, and References** are due to classroom teacher.

February 27, 2018 or February 28, 2018- **Bring Science Fair Project** to the MPR after school on February 27th from 2:45pm – 3:45pm for set up. The MPR will be closing promptly at 3:45, so do not show up at 3:40 and expect to take 20 minutes to set up your project. You will be asked to leave and come back in the morning. If the after school time does not work within your schedule, you may bring your project to the MPR on February 28, 2018 in the morning between 7:45am – 8:00am.

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Do you need help deciding which science fair project option to choose? Use this table to help you. Have fun and remember: Science rocks!

	MARIN COUNTY SCIENCE FAIR PROJECT	**MES UNCONVENTIONAL SCIENCE FAIR PROJECT**
Must meet project deadlines	X	X
May work individually or in groups of 2 – Partners must be in the same classroom	X	X
Completed project must be delivered to the MPR on February 27th after school (2:45-3:45) or February 28th before school (7:45-8:00)	X	X
Attend MES Science Fair Night and stand next to your project – Partners need at least one person at the project	X	X
Components: title, question, hypothesis, research, materials, procedure, data collection, results, abstract, conclusion, and references	X	
Components: title, question, hypothesis, materials, procedure, data collection, results, conclusion, and references		X
Must complete a project based on the scientific method	X	X
Categories: Physical Science, Life Science, Behavioral Science, Math and Computers, Environmental Science, or Engineering	X	X
Collections and models are allowed		X
Tri-Fold Board is mandatory	X	

	MARIN COUNTY SCIENCE FAIR PROJECT	**MES UNCONVENTIONAL SCIENCE FAIR PROJECT**
Project may be displayed in a variety of ways including, but not limited to: poetry, film, dance, comic strip, rap/song, essay, posters, animation, books, art, mind craft design, public service announcement, power point/keynote, model, etc. Tri-fold boards are available upon request		X
Must attend the Marin County Science Fair meeting in Ms. Hutchens' room	X	
Project is graded by your classroom teacher	X	X

Science Fair Entry Form

Student's Name:_____Grade:__ Partner's Name:_____Grade:__

Teacher:_____ Room #:_____

_____Yes, I would like to enter the Marin County Science Fair. I will attend the meeting on Monday, January 23, 2017 in Ms. Hutchens' classroom during lunch and lunch recess.

_____Yes, I would like to enter the MES Unconventional Science Fair.

Topic: (Circle the appropriate topic)

Physical Science Life Science Behavioral Science Math and Computers

Environmental Science Engineering

Science Project Title:_____

Brief Description:

_____

_____

_____

I will be using Human subjects: YES NO I need an electrical outlet: YES NO

I need a tri-fold board: YES NO

My project for the MES Unconventional Science Fair requires additional space. Explain and please include dimension and location information.

_____

_____

Parent Signature:_____

Student Signature:_____

Please return to your teacher by Friday, January 26, 2018