Mills Park Elementary School

2017-2018 Science Fair Information Sheet

What is the purpose of a Science Fair?

The process of choosing a problem and formulating a hypothesis, planning a project and predicting the results, gathering and analyzing data, and drawing conclusions is an incredible learning experience for anyone, but especially for children. Celebrating your child's use of the scientific method will prove to be a memorable experience!

What is the scientific method?

The scientific method is a problem-solving approach that, once learned, can be used as an approach in many areas in life, not just science. Usually applied in a series of steps, the scientific method includes:

1. Ask a question or identify a problem
2. Observe what is happening and conduct background research
3. Construct a hypothesis that explains what is happening or predict a result
4. Test the hypothesis by doing an experiment
5. Analyze the data and draw a conclusion
6. Communicate the results using descriptions, graphs, and tables

Who enters projects?

Fourth and fifth grade students may choose to enter a project. Students may choose to work with **one** other student; however, each student is responsible for making arrangements outside of school to collaborate on the project.

How do we enter a project?

Entry forms should be completed and submitted online before December 8. Please complete this form to enter the Science Fair (one must be completed for EACH student so there may be 2 per project).

What type of projects can be entered?*

All projects must include a poster display. No outlets will be available so please plan on including any pictures/displays/journals as needed. Please do not send in valuable items.

1. **Experiment**
   Conduct an investigation to solve a problem, answer a question, or test a hypothesis.
   Example: *Which battery lasts the longest?*
2. **Observation**
   Reports on observations that help explain a scientific process.
   Example: *What birds frequent a feeder in the month of December?*
3. **Invention**
   Invent something new or add an innovative touch to something already existing.

***Note:** **Those projects which best utilize the scientific method have the greatest chance for advancement to regional competition in the science fair.**

***Note:** **Students should not do projects with dangerous substances or that may harm animals or people. Please visit the NC Science and Engineering Fair website at www.ncsciencefair.org for a complete list of rules and requirements for your child's project. Please also refrain from projects involving bacteria.**

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2017-2018 Science Fair Schedule of Events

Entry Forms Due	**Friday, Dec. 8**
Project Registration	**Tuesday, Jan. 16** *4:00-5:30 pm* *OR* **Wednesday, Jan. 17** *8:00-8:45 am.*
Science Fair Judging	**Wednesday, Jan. 17** *(9:30-1 with brief student interviews, as needed. Note that only those being considered for the top 10 may be interviewed)*
Viewing for parents	**Wednesday, Jan. 17** *5:00-6:30 pm*
Top 10 Awards	**Thursday, Jan. 18** *9:15 am in the gym*

Note: Students may **NOT** put their name on the front of their poster. Please list student names in the top left hand corner on the back only. At check in, students will be given a sticker with the project number that will be affixed to the top right hand corner of the display.

Family viewing and project pick-up:

Projects may be viewed from 5:00-6:30 pm on Wednesday, January 17. *The top ten projects will be announced at the end of the day on Wednesday, January 17. All projects other than the top ten may be taken home after viewing on Wednesday night. The top ten projects need to remain in school for Thursday's assembly.* Students who are unable to bring home their projects on Wednesday night must bring them home from school on Thursday.

Awards/Assembly:

Projects are evaluated using the rubric included in this packet. The top ten projects will receive an "Honorable Mention" award. From these, the top three projects will receive a "Best in Show" award and will have the opportunity to move on to the regional science fair competition.

The top ten projects will be honored during an assembly at 9:15 am, on Thursday, January 18, in the gym. During this assembly, the first, second, and third place awards will be announced. The students will give a brief overview of their project at this time (just a few sentences).

Questions and more information: Please email…

Katrina Murray (4th grade teacher) kamurray@wcpss.net

Links are also available at her class website via the MPE website and on the MPE website.

Science Fair: How can I help as a parent?

Please…

- Encourage your child to do a project
- Read the information provided
- Offer suggestions and praise throughout the process
- Discuss the scientific method with their children
- Provide materials and help to organize
- Help your child set up a schedule and offer reminders
- Remember that ideas and work should be the child's own
- Provide opportunities for your child to visit a library for research
- Purchase a display board
- See the attached sample judging rubric to see what our judges will be looking for
- Attend the Science Fair viewing

Parent and student don'ts for the Science Fair:

- Waiting until the last minute
- Turning in late entry forms
- Placing his or her name, or photo of their face on the front of the display board
- Bringing in any live animals or food as part of the display (Take pictures instead)
- Allowing your child to use fire, sharp objects, or dangerous chemicals as part of the project
- Spending more than about $20.00 on supplies
- Buying a kit for your child to put together
- Forgetting to turn in your project
- Forgetting to attend the Science Fair viewing

Mills Park Elementary Science Fair **Scoring Rubric 2017-2018**

Project Number _____SAMPLE_____ **SAMPLE**

	1	***2***	***3***	***List Score Here***
Question Hypothesis and Variables	▪ Question/Problem is **not clear** ▪ Hypothesis/Prediction is **not** present or **doesn't** address the question at all ▪ Variable(s) are not included	▪ Question/Problem is **somewhat clear** ▪ Hypothesis/Prediction **somewhat** addresses the question ▪ **Some** variable(s) are included but are not complete or are not clearly identified	▪ Question/Problem is specific and **very clear** and can be answered by doing an experiment ▪ Hypothesis/Prediction addresses the question **very clearly** ▪ Independent (manipulated), Dependent (responding) and Controlled variable(s) are included and are clearly identified	
Experimental Procedure	▪ Materials list is **not** detailed and complete and clear ▪ Experimental procedure is **not clear** ▪ Includes **no** repetitions	▪ Materials list is **somewhat** detailed and complete and clear ▪ Experimental procedure is **very clear** ▪ Includes **only 2** repetitions	▪ Materials list is **very** detailed and complete and clear ▪ Experimental procedure is **very clear** ▪ Includes **at least 3** repetitions .	
Data	▪ Data is **not clear** ▪ **Poor or No** use of photos/charts/graphs to display data.	▪ Data is **somewhat clear** ▪ **Good use** of photos/charts/graphs to display data	▪ Data is **very clear** ▪ **Excellent use** of photos/charts/graphs to display data	
Conclusions	▪ Conclusions are **not supported** by the data.	▪ Conclusions are **not clearly supported** by the data.	▪ Conclusions are **clearly supported** by the data.	
Display	▪ Display is **neither** neat, creative, **nor** organized ▪ **No** attention to detail	▪ Display is **somewhat** neat, creative and organized ▪ **Minor** attention to detail	▪ Display is **very** neat, creative and organized ▪ **Significant** attention to detail	
Level of Student Involvement	▪ Display shows a **low** amount **or no** involvement by the students in the procedure.	▪ Display shows a **medium** amount of involvement by the students in the procedure.	▪ Display shows a **high** amount of involvement by the students in the procedure.	
Creativity	▪ Project shows a **low** amount of creativity.	▪ Project shows a **moderate** amount of creativity.	▪ Project shows a **high** amount of creativity.	