2019 East Pike & Horace Mann Science Fair

Dear East Pike and Horace Mann Student:

It's time to get ready for the **Science Fair that will be held on Wednesday, February 27th from 6:00-8:00pm** at East Pike School! Your parents, teachers, school personnel, friends, and relatives are anxious to have you "show off" what you have learned in school or at home. Therefore, we are inviting you to prepare a SCIENCE experiment that you have worked on and would like to exhibit.

The Science Fair will focus on your work and learning in the areas of science. You can develop your presentation by yourself or with family help. We are encouraging all students to voluntarily participate! In order for our committee to plan appropriately, you will need to complete and return the attached, "**2019 Science Fair Application**" by **Thursday, January 31st. Forms submitted after January 31st will NOT be eligible for judging.**

You can participate in the fair in two ways:

(1) **SCIENCE FAIR PROJECT with a hypothesis, experiment and results on a display board**. Prepare a display that demonstrates what you learned and enter your project to be **judged** using the criteria explained in the attachment "**2019 Judging Criteria**". With this option, you will be interviewed **during the actual fair.** Since your project will be judged, you will receive an Exhibitor ribbon, a Certificate of Participation, and possibly a first, second, or third place ribbon **on the night of the Fair, Wednesday, February 27th**. The judging will be categorized by grades K-1st, 2nd - 3rd, and 4th - 5th. Those projects awarded a 1st, 2nd, or 3rd place ribbon will be eligible for a main prize in each category. Those names will be put in a hat and a name pulled out for the main prize. If you attend the night of the fair, you will also be entered to win a door prize.

(2) **Science Fair Exhibit/Demonstration Only**. Prepare a display that demonstrates something you have learned and display your hard work. You will not be judged if you do not submit a form, but you can still display your work. If you chose this option, you will receive an Exhibitor ribbon, a Certificate of Participation, and you will be entered to win a door prize.

Please plan to bring your project to East Pike School **anytime between 4:30pm – 6pm** on February 27th to display your hard work! You may set up and leave if you need to, but you must be back by 6:15pm. Judging will begin promptly at 6:30pm. Should you have any questions, please feel free to contact me. Also, there will be hard copies of all of these forms at your school office.

Sincerely,

Randi McCombie-Shaffer
724-464-4627 or randi.mccombie@yahoo.com

Science Fair websites for great ideas (there are many more online):

sciencebuddies.org
school.discoveryeducation.com
http://www.parenting.com/gallery/easy-science-fair-projects-kids

2019 East Pike and Horace Mann Science Fair Application

This form must be completed and returned to the office in an envelope labeled "Science Fair Application" no later than Thursday, January 31st, 2019

Last Name _____ First Name _____

Homeroom/Teacher _____ Grade _____ Phone No._____

Email_____

PLEASE CHECK ONLY ONE OF THE FOLLOWING TWO OPTIONS:

☐ I am entering a display in the Fair, and I want my display to be judged. I understand I must be available for an interview with a judge **during the Science Fair on Wednesday, Feb. 27th at 6:30pm.**

☐ I am entering a DISPLAY ONLY or showing a DEMONSTRATION ONLY in the Science Fair. My project will not be judged.

I am entering a display in the following Category (PLEASE NOTE, there are no group projects):

_____ K to Grade 1 individual
_____ Grade 2-3 individual
_____ Grade 4-5 individual

Title of Project_____

ALL STUDENTS, PLEASE ANSWER THE FOLLOWING QUESTIONS:

☐ Yes ☐ No I need wall space to hang part of my display.
☐ Yes ☐ No I need table space for my display.
☐ Yes ☐ No I need an electrical outlet for my display.

What is the approximate width of your display? (Check one)
☐ standard display board* ☐ actual dimensions: _____

Please write a short description of your project and display.

_____

_____

I have reviewed the Science Fair information and calendar with my child, _____, (please print) and we understand the requirements for a successful Science Fair project.

Parent/Guardian: _____ Date: _____
PRINT NAME

Student Signature: _____ Date: _____

*See attachment "**How to layout a Display Board**"

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Criteria for Judging/Guidelines

The following criteria will be used to rate your display. Please give careful consideration to each of the criteria while conducting your experiment or research and preparing your visual display. Even if you are not entering the judged competition, you should review the criteria below to help you make a complete, well-thought-out display.

Science Criteria (scientific thought)

- Is the problem clearly stated?
- Does the project follow the scientific method?
- Are the procedures presented clearly and in logical order?
- Is the information accurate and complete?
- Does the data collected justify the conclusion made?

Science Criteria (methodology)

- Is there evidence of interpretation of data?
- Is there evidence of adequate and reliable resources?
- Is the data collected sufficient and relevant to the topic or problem?

Science Project Criteria (visual display)

- Are the title, subheadings and all lettering neat and colorful?
- Is the layout neat, well organized, complete and easy to read?
- Are the materials used in a creative way?

Science Project Criteria (oral presentation)

- Does the student understand the topic shown by use of appropriate vocabulary?
- Is the content communicated effectively?
- Does the student speak slowly, loudly and clearly?

How to Layout Your Science Fair Display Board

Problem - stated in question form. **Hypothesis** Must be in the if...then...because... format. **Procedure–** (or here) how you conduct your test.	**Project Title** **Data** **Results (Write a short statement about what your data tells us)** **Graphs** - show your data that was collected and display the results in the appropriate graph. **Pictures–** pictures are not required but add to the quality. ***Your data notebook (if done) should sit in front of your board on the table**	**Procedure** - (or here) how you conduct your test. **Conclusion** - Most important part of your experiment!

*****You can make changes as long as everything above is on your board.*****

Helpful Hints:

- Use a font large enough to read from a distance (minimum 16pt)
- Only readable fonts are to be used.
- Arrange everything BEFORE you glue.
- Check and double check for spelling errors-have an adult proofread your work.
- Do not write directly on the board.
- Do not use glitter glue or other distracting items.
- Be precise-cut straight (use a paper cutter) and glue straight.
- Data notebook should sit in front of your board on the table-it is not glued onto your board.
- Be creative and have fun. Show your audience what you did and that you are proud of your work.
- Pictures of your experiment really improve the quality of the display board. Be sure to write captions under the pictures to explain what they are.
- If you take an image and use it on your board you must give that image credit by listing where you got it, as a caption, under the picture.
- You may not put pictures of people's faces on the board. Data needs to be anonymous.
- When you get to the science fair you will place the project number on the top right hand corner of the board so the judges can find you.

Research and Presentation Scoring Rules:

Students' research and presentations must conform to following set of Research and Presentation Rules. Students and their research projects are judged on their ***OWN merit*** in meeting the Criteria for Judging rather than in comparison to other Students or research projects.

These following rules are designed to teach students better presentation skills and provide the judges with a uniform set of guideline:

1) Each student's research project & presentation will be judged on its ***own merit*** in meeting the Criteria for Judging rather than in competition with other research or students.
2) The student doing the presentation ***must*** be the one who conducted the research. (ABSOLUTELY NO SUBSTITUTES).
3) Although students may present a new phase of an on-going project, no student may present a research topic from a previous year without conducting significant additional research on the topic during the current year.
4) Measurements must be in metric except where highly specialized equipment is calibrated in other units. Presentations in which the measurements were not done in metric will not receive a first place award, regardless of score.
5) Each student will give their presentation in the same order as listed in the program booklet. The judges may make an exception for unusual circumstances.
6) The judging team may not add a student to the program without official notice from the Registration Committee or its representative.
7) The presentation will not exceed a maximum time limit of ten (10) minutes and will be given proper notice by a timekeeper. No reduction in score will be given for a presentation of less than ten (10) minutes. Presentations exceeding ten (10) minutes will not receive a first place award, regardless of score. There will be a grace period of approximately 10 - 15 seconds before this penalty is applied.
8) Presentation specifics:
   a) A student shall not be interrupted during his presentation and no one shall be permitted to enter or leave the room during the presentation.
   b) The researchers may use notes in their presentations but reading the report to the judges is considered bad form.
   c) Any two-dimensional representation (charts, pictures, graphs, posters, slides, projections etc.) may be used to enhance and supplement the talk, but not to replace the speaker.
   d) No three-dimensional objects may be used in the presentations.
   e) The actual experiment may NOT be used in the presentation*.
   f) No materials may be passed to the judges during the presentation. Only in rare, unique situations might the judges request materials during the questioning period.
   g) Only a PJAS technician may assist with the use of the audiovisual equipment.
   h) Specialized presentation media such as video recording, tape cassettes, computer screens, etc. should be used only when absolutely necessary to establish a point that cannot be made with standard media and should constitute at most 10% of the total speech.
   i) In cases of doubt as to the appropriateness of a presentation, the State Judging Chairmen will make the final ruling.
9) Upon completion of the presentation the researcher may be questioned BY THE JUDGES for a time period of NOT MORE THAN 5 MINUTES. Judges may ask questions to seek clarification of a student's methods, conclusions, and/or understanding. It is inappropriate for judges to criticize or comment on a student's project.
10) Scoring specifics. Each category of the Judging Criteria shall be scored on a 5 point integer system: (Excellent) 5 - 4 - 3 - 2 - 1 (Unacceptable)
11) The student shall receive award based on the average score per judge, calculated by the following formula: Average Score = Total Score of All Judges / Total Number of Judges
12) The standards for awards at the State Meeting are: 1st award - average score 4.0 or higher, 2nd Award - average score 3.0 or higher, 3rd Award - average score below 3.0
13) If there is a question of student eligibility, ONLY the judging committee or judging chair may disqualify the student. Judges may not disqualify a student. The judging committee or judging chair may ask for input from any source they wish.
14) Questions concerning infractions of the State Rules for Judging are subject to the investigation and ruling of the Chairmen of the State Judging Committee and the Regional Directors if appropriate.
15) Non-PJAS Awards. Judges should be aware that outside agencies often are interested in rewarding some of our participants, identified either by judges' high scores or a set of criteria of their own.

* However, in Computer Science projects, it may be appropriate to show the actual operation of a computer program. cases of doubt as to the appropriateness of the presentation, the Judging Committee will make a final determination. For additional details regarding the use of Audiovisuals, see General Notes on the Use of Audiovisuals.