Dear Parent & Students:

It’s time to start work on the Pembroke Pines Charter School’s East Campus Annual Science Fair. The exhibition of scientific skill and knowledge will take place the week of May 2, 2016, in conjunction with Multicultural Night on May 4, 2016.

The purpose of the Science Fair is to encourage our student scientists to further develop a greater interest in science and technology and to develop skills in critical thinking, research, problem solving, and use of the scientific method and process skills. It is our goal to have our students be hands-on, minds-on, active learners. What better opportunity to develop these skills than while doing a project which has them actively and directly involved in the design of the experiment, performing the investigation, collecting data, proving or disproving their hypothesis and finally constructing the display board of their results for presentation. Kindergarten through 3rd Grade will be working collaboratively with classmates and teachers on one investigative exploration per class. 4th & 5th grade students will be paired in groups of five, to complete their in-school science fair project. Fourth and fifth grade teachers will be monitoring this process, but please remember that we will need your support in gathering all necessary materials for their project. Additionally, groups may wish to seek approval to meet off campus to perform research or experimentation.

**Project due dates are as follows:**
Grades 4 & 5 Monday, May 2, 2016
Grades Kindergarten - 3 Tuesday, May 3, 2016

*All Science Fair projects are worth 3 grades towards your child’s Science Grade for the 4th Quarter*

Although some typical science fair projects such as reports, diagrams and models allow students to show “what they know”, they do not teach questioning strategies and experimental design and are not to be created for or submitted at the PPCS East Campus Science Fair. (ie; volcanoes, models of the solar system, etc.). The Science Fair Packet is to be fully utilized by your student scientist and his/her research team. It” is very detailed and provides suggestions, web-sites, specific directions and examples to assist each of our young Scientists in the design and development of their project. Ample time has been scheduled during the instructional day, to afford our students more than sufficient time to complete their work at a comfortable pace. Additionally, if needed, I will be more than happy to meet with students after-school on an agreeable day/time. Our student scientists are to be actively and directly involved in the designing of the experiment, performing the investigations, collecting data and finally constructing the display board of their results for presentation and exhibition. Parents will have the opportunity to see all displayed projects on Multicultural Night, which will be held the evening of May 4, 2016. More detailed information about this event will come at a later date. Please sign the Project Guidelines Form at the back of this packet and return it to the school by April 13, 2016.

I look forward to watching our students enjoy this unique opportunity for science discovery. Please do not hesitate to contact me with any questions you may have. I can be reached at 954-443-4800 or via email ldizengoff@pinescharter.net. Frequent updates and helpful hints will be posted regularly on Jupiter Grades. Please check your accounts often.

*Scientifically Yours,*
*Mrs. Dizengoff*
*Science Facilitator*
# PPCS – EAST SCIENCE FAIR STUDENT PACING SCHEDULE/CALENDAR

**Student** __________________________ **Teacher** ______________ **Grade** ___

**Project Topic/Title** ______________________________________________________

<table>
<thead>
<tr>
<th>Pacing Schedule</th>
<th>Time Line Due Date</th>
<th>Parent’s Signature &amp; Date</th>
<th>Teacher’s Signature &amp; Date</th>
<th>Completion Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students will be placed in their Science Teams</td>
<td>4/8/2016</td>
<td></td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>2. Share letter &amp; packet with parents</td>
<td>4/11-12/2016</td>
<td>N/A</td>
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<tr>
<td>3. Return contract signed</td>
<td>4/13/2016</td>
<td>N/A</td>
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<td>/5</td>
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<tr>
<td>4. Select Topic / Problem Statement</td>
<td>4/15/2016</td>
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<tr>
<td>Identify Manipulated Variable</td>
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<tr>
<td>Identify Responding Variable</td>
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<tr>
<td>5. Complete topic research</td>
<td>4/19/2016</td>
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<tr>
<td>Cite three or more resources</td>
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<tr>
<td>Form a Hypothesis</td>
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<tr>
<td>6. Design an Experiment:</td>
<td>4/22/2016</td>
<td></td>
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<td>/10</td>
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<tr>
<td>Identify Variables/Control</td>
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<tr>
<td>Write Procedures.</td>
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<tr>
<td>List and collect materials.</td>
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<tr>
<td>Create a Data Collection Table.</td>
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<td>7. Perform Experiment:</td>
<td>4/25/2016</td>
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<td>/15</td>
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<tr>
<td>Collect Data</td>
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<tr>
<td>Take pictures</td>
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<tr>
<td>Create a graph</td>
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<tr>
<td>8. Analyze Data</td>
<td>4/25/2016</td>
<td></td>
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<td>/15</td>
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<tr>
<td>Write Results</td>
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<tr>
<td>Compare Results to Hypothesis.</td>
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<tr>
<td>Write Conclusion &amp; Application.</td>
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<tr>
<td>9. Write the Abstract &amp; Bibliography.</td>
<td>4/26/2016</td>
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<td>/15</td>
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<tr>
<td>10. Prepare &amp; complete Projects for submission (Display Board)</td>
<td>4/25 -29/ 2016</td>
<td></td>
<td></td>
<td>/10</td>
</tr>
<tr>
<td>11. Turn in Science Fair Project</td>
<td>5/2/16</td>
<td></td>
<td></td>
<td>/15</td>
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<tr>
<td>Grades 4 &amp; 5</td>
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</tbody>
</table>
• Please note: Your child’s Science teacher, as well as Lab teacher will allot ample instructional time for all Student Science Teams to complete the tasks outlined below by the due dates. All projects will be completed collaboratively in school.

• Science Research Teams may meet independently off campus to conduct research and experiments if approved ONLY. All projects are to be IN SCHOOL and assembling of the display board are to be done on campus as a group effort.

• The Science Fair Project will be awarded three (3) project grades: one for the completion of the planning/rough draft as per the checklist, one for the final project (display board) and one for the overall collaborative efforts of the Science Team.

• Late submission of a task/assignment will result in a 5% penalty of the specific section’s points.

• For your convenience, display boards and title strips will be available for purchase on campus for $6.00 per set in the Science Lab. Sales will begin the week of April 18th.
SCIENCE FAIR RESOURCES

- Display Boards, and Title Strips will be sold on campus for $6.00, so as to make obtaining some of your necessary materials a bit easier. Sales will begin the week of April 18th.

SCIENCE LAB MATERIALS & EQUIPMENT

- All Scientists & Research Teams may ‘borrow’ books, equipment and materials from the Lab.
- Mrs. D~E will be happy to meet after school with any ‘research teams’ that may need or want additional assistance. A schedule-sign-up sheet will be located outside the Lab, as well as on Jupiter Grades.

INTERNET RESOURCES

Listed below are some popular science websites. These are just suggestions. Many will help you get started on your research for exploration and experimentation.

http://all-science-fair-projects.com/ - science fair projects with instructions
http://www.cdl.ca/sciencefairstarters/ - ideas and resources for science fair projects
http://madsci.org/areas/sci_fair.html - Mad scientist network;
http://www.ipl.org/div/projectguide/ - Internet Public Library science fair resource guide
Http: www.scienceclub.org/kidporj1.html - simple, medium, and advanced project
http://pbskids.org/dragonflytv/scifair - Dragonfly (PBS Science)
http://school.discovery.com/sciencefaircentral: Science Fair Central -The Discovery Channel
http://www.sciencebuddies.org/mentoring - Science Buddies
http://www.all-science-fair-projects.com -All Science Fair Projects

LET THE EXPERIMENTING BEGIN!!
PPCS ~ EAST PROJECT PLANNING GUIDE

Select a Topic

Research your Topic
Other than using the internet, where else can you find information about your topic?

Define your Problem:

Define your Purpose: (In general, how & what will you do?) (*Problem & Question can be used as well)
For example, you may start: The purpose of my science project is to find out what will happen if....

Define your Hypothesis: (If.....I do this.... Then.....I think this will happen... Because ...of this.)**
PPCS ~ EAST STUDENT SCIENTIST PROJECT PLANNING GUIDE

** Your hypothesis does not have to be correct at the end of your experiment. It is a starting point describing what you think will happen. The important thing in a science fair project is not if your hypothesis is correct or not, but how you investigated your experiment, collected your data, and that you explained correctly the analysis of what happened with your experiment.

Design your Experiment: (this experiment will test your hypothesis to see if it is correct)

<table>
<thead>
<tr>
<th>What stays the same? (controlled variables)</th>
<th>What changes? (independent variables)</th>
<th>What is measured? (dependent variables)</th>
</tr>
</thead>
</table>

TIP: The challenge is to create a “fair test”, where only one factor or variable is changed at one time so that you, the investigator, can correctly determine what impact the change had on the experiment.

Describe what your project will look like

Determine your Materials List:

Now set up your project and enjoy investigating! Journal Everything
Scientific Method Inquiry Investigation Planning/Rough Draft

Topic (main idea/area of science): ________________________________

Brainstorm Variables – A list of things I can change to investigate a problem having to do with this topic:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

I will change (independent variable): ________________________________

I will measure or observe (dependent variable(s)): ________________________________

I will keep these things the same to have a controlled experiment and a fair test (controlled variables):

__________________________________________________________________________

My problem statement: The problem statement is a question that I will answer with my experiment and must include a reference to both the independent and dependent variables:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Background: What I know about this topic and problem already – Note that this is completed before doing the experiment, from prior knowledge or from research (include research sources in bibliography and attach additional pages as necessary):

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

My hypothesis – A prediction based on what I know and what I think will happen. You must include a reason for why you think this way and include the variables as in the problem statement:

__________________________________________________________________________
Materials: List of materials I need to complete my experiment (in a list, include quantities and use the metric system):

Procedure: A list of the detailed step-by-step directions to perform the experiment, in the order I will perform them:

1. 
2. 
3. 
4. 
5. 
6. 
7. 

Trials (How many times I will repeat the experiment) – minimum of 3:

Data – A useful table to record all my data – measurements and observations. Also take photographs and record notes and observations – For example:

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial</td>
<td>1</td>
</tr>
</tbody>
</table>

STEM Inquiry Investigations © 2012, Broward County Public Schools  Science – B-9
Graph – A graph based on my data (independent variable on the x-axis and dependent variable on the y-axis). Do not forget to label axes and title the graph.

TITLE:

Results – What happened (summarize results)? Did anything go wrong or did anything unexpected happen when doing the experiment?

Conclusion – Based on results, what I found out as the answer to my question. Compare results to the hypothesis. Did the experiment support the hypothesis? Why or why not?
Applications: How can this be used in everyday life? Think about why you were interested in the topic to begin with. How others use what I learned:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Acknowledgements: Thank you to those who helped with my project

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Bibliography: List books, journals, periodicals – all specific resources used – google.com and the like are search engines NOT resources – give specific websites used – use the bibliography guide in the booklet for a suggested format:

________________________________________________________________________

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Abstract: A summary in one page or less explaining what was done and the results and conclusion:

________________________________________________________________________

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________________________________________________________________________
Student Scientist’s names should not be written anywhere on the front of the display, but rather on the back, along with their teacher’s name and grade.

Creating your Science Fair Display

A well designed Science Fair Project includes all of the following aspects:

**Question**---This is the problem you are trying to solve or the question you want to answer. Example: Which batteries will last the longest?

**Preliminary Research**--This is the information you find out about your topic before you do it. You can look in books, go on the internet, or ask an expert. 
Example: Maybe I can check out books about batteries or ask an adult for help going online...

**Hypothesis**--This is your prediction about what will happen based on research.
Example: The Big bucks brand of batteries will last longest because they are the most expensive.

**Materials**--This is the list of things you will use to do the experiment.
Example: Different brands of batteries, a flashlight, a timer...

**Procedure**--This is a numbered list of steps that you followed to complete your experiment.
Example: I put one brand of battery in the flashlight. I turned the flashlight on and started the timer...

**Results**--This is where you tell “what happened” when you did your experiment. You can use words to describe your results, make a graph or chart, fill in a table, or draw a diagram.
Example: When I tested the batteries, Cheapskate brand actually lasted the longest. Here is a chart comparing the batteries and how long they lasted.

**Conclusion**--This is where you explain your results. What does that tell you about the hypothesis? Were you right or wrong? Why? What did you learn? What do you now believe about your experiment? Example: My hypothesis was wrong because the Big bucks brand of batteries did not last the longest. I discovered that the price of batteries does not matter, because Cheapskate (the cheapest brand) lasted longest. Big bucks (the most expensive brand) lasted only half as long. Maybe I should buy cheaper batteries to save money.
SAMPLE: S.T.E.A.M. DISPLAY BOARD TEMPLATE

| Introduction or Statement of Problem... | Project Title  
<table>
<thead>
<tr>
<th>Can be on header board)</th>
<th>Interpretation of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background and/or Research</td>
<td>Data</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Tables</td>
</tr>
<tr>
<td>Materials</td>
<td>Graphs</td>
</tr>
<tr>
<td>Experiment</td>
<td>Charts</td>
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<tr>
<td></td>
<td>Photographs</td>
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<tr>
<td></td>
<td>Conclusion</td>
</tr>
<tr>
<td></td>
<td>Future</td>
</tr>
<tr>
<td></td>
<td>Applications</td>
</tr>
<tr>
<td></td>
<td>Bibliography</td>
</tr>
<tr>
<td></td>
<td>Acknowledgments</td>
</tr>
</tbody>
</table>
Below is the outline that is to be used to create your science fair report. Each section is a new page, but most of the sections are brief. The contents of your report should reflect the project that was completed.

**This must be submitted with all projects**

**Title page**
- Title
- Your name
- Teacher/Grade

**Statement of the Problem**
What is the experimental question?

**Background Research**
At least one paragraph, no more than one page

**Statement of the Hypothesis**
What is the original hypothesis and WHY?

**Materials**
- Detailed and specific items used, including quantities (cup, ounces)

**Procedure**
A step-by-step, (sequential) order of the experiment.

**Findings/Data**
*This is your data and observations*
- Include qualitative observations. (Sketches, diagrams, pictures)
- As well as quantitative observations (weights, measurements)

**Conclusions**
State whether or not the hypothesis was correct. Prove it with data!

**Recommendations**
After completing the experiment what are other experiments that could be interesting to test?

**References**
This is the bibliography
- Must have at least three sources.
- Bibliographies can be created with the help of online resources.

**Acknowledgements**
- This is where you thank everyone and anyone who has helped you
- Examples would be parents that purchased items, teachers who took you to a particular place, someone who lent you materials etc.
- Not very long at all, maybe a paragraph.
- This is the only section that can be in 1st person.
### 2016 Science Fair Scoring Rubric

**Student Scientist Research Team Members:**

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Grade</th>
</tr>
</thead>
</table>

### Rubric Details

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Abstract &amp; Bibliography</strong></td>
<td>To what degree does the abstract and bibliography describe the project and support the research?</td>
<td>0 = No abstract/no documentation of research; 1 = Poorly written and one documentation; 2 = Poorly written and two documents of research; 3 = Well-written but does not describe all components of the project; 4 = Well-written and completely describes the project</td>
</tr>
<tr>
<td><strong>2. Problem Statement</strong></td>
<td>To what degree is the problem statement new and different for a student at this grade level and how well is it written?</td>
<td>0 = No Problem Statement; 1 = Incomplete Problem Statement; 2 = Poorly written or not in question form; 3 = Complete well-written Problem Statement in question form; 4 = Above expectations – detailed, well-written, testable</td>
</tr>
<tr>
<td><strong>3. Hypothesis</strong></td>
<td>To what degree is this a testable prediction?</td>
<td>0 = No hypothesis; 1 = Incomplete hypothesis; 2 = Complete hypothesis, but not completely testable; 3 = Hypothesis is well-written and testable; 4 = Hypothesis is above expectations – detailed, well-written, testable</td>
</tr>
<tr>
<td><strong>4. Procedures</strong></td>
<td>- Numbered step by step</td>
<td>0 = No overall procedural plan to confirm hypothesis; 1 = Partial procedural plan to confirm hypothesis; 2 = Sufficient procedural plan to confirm hypothesis; 3 = Well-written, numbered step by step, sentences beginning with verbs; 4 = Well-written as above and detailed including repeatability and specified measurements of materials used in experiment</td>
</tr>
<tr>
<td>- Sentences begin with verbs</td>
<td>0 = No problem statement or interpretation of data support for hypothesis; 1 = Partial problem statement or interpretation of data support for hypothesis; 2 = Complete hypothesis, but not completely testable; 3 = Incomplete hypothesis; 0 = No hypothesis</td>
<td></td>
</tr>
<tr>
<td>- Quantities to measure are listed in metric units</td>
<td>0 = No variables or constants are recognized; 1 = Some variables or some constants are recognized; 2 = All variables are recognized, but not all constants and controls (if applicable) or vice versa; 3 = All variables &amp; constants and controls (if applicable) are recognized; 4 = All variables &amp; constants and controls (if applicable) are clearly and appropriately recognized</td>
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<tr>
<td><strong>5. How well are all variables recognized?</strong></td>
<td>- Test (independent/manipulated)</td>
<td>0 = No written narrative interpretation of data; 1 = Partial written narrative interpretation of data; 2 = Correct written narrative interpretation of data; 3 = Comprehensive narrative interpretation of data including averaging; 4 = Comprehensive and significant interpretation of data above expectations</td>
</tr>
<tr>
<td>- Outcome (dependent/responding)</td>
<td>0 = No written narrative interpretation of data; 1 = Partial written narrative interpretation of data; 2 = Correct written narrative interpretation of data; 3 = Comprehensive narrative interpretation of data including averaging; 4 = Comprehensive and significant interpretation of data above expectations</td>
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<tr>
<td>- Control (if applicable)</td>
<td>0 = No written narrative interpretation of data; 1 = Partial written narrative interpretation of data; 2 = Correct written narrative interpretation of data; 3 = Comprehensive narrative interpretation of data including averaging; 4 = Comprehensive and significant interpretation of data above expectations</td>
<td></td>
</tr>
<tr>
<td>- Constants</td>
<td>0 = No written narrative interpretation of data; 1 = Partial written narrative interpretation of data; 2 = Correct written narrative interpretation of data; 3 = Comprehensive narrative interpretation of data including averaging; 4 = Comprehensive and significant interpretation of data above expectations</td>
<td></td>
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<tr>
<td><strong>6. Materials and Equipment</strong></td>
<td>Were the items:</td>
<td>0 = No materials identified or used; 1 = Materials not specifically identified and/or used properly; 2 = Materials specifically identified but used improperly; 3 = Materials specifically identified in column form and used properly; 4 = Materials specifically identified in column form &amp; metric units used properly</td>
</tr>
<tr>
<td>- listed in column form</td>
<td>0 = No written narrative interpretation of data; 1 = Partial written narrative interpretation of data; 2 = Correct written narrative interpretation of data; 3 = Comprehensive narrative interpretation of data including averaging; 4 = Comprehensive and significant interpretation of data above expectations</td>
<td></td>
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<tr>
<td>- equipment specifically named</td>
<td>0 = No written narrative interpretation of data; 1 = Partial written narrative interpretation of data; 2 = Correct written narrative interpretation of data; 3 = Comprehensive narrative interpretation of data including averaging; 4 = Comprehensive and significant interpretation of data above expectations</td>
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<tr>
<td>- metric units are used</td>
<td>0 = No written narrative interpretation of data; 1 = Partial written narrative interpretation of data; 2 = Correct written narrative interpretation of data; 3 = Comprehensive narrative interpretation of data including averaging; 4 = Comprehensive and significant interpretation of data above expectations</td>
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<tr>
<td><strong>7. Results</strong></td>
<td>To what degree have the results been interpreted?</td>
<td>0 = No written narrative interpretation of data; 1 = Partial written narrative interpretation of data; 2 = Correct written narrative interpretation of data; 3 = Comprehensive narrative interpretation of data including averaging; 4 = Comprehensive and significant interpretation of data above expectations</td>
</tr>
<tr>
<td><strong>8. Conclusion</strong></td>
<td>To what degree are the conclusions recognized and interpreted?</td>
<td>0 = No problem statement or interpretation of data support for hypothesis; 1 = Incomplete problem statement or interpretation of data support for hypothesis; 2 = Correct/complete conclusion/interpretation of data support for hypothesis; 3 = Well-written conclusion/interpretation of data support for hypothesis; 4 = Well-written conclusion/interpretation of data support for hypothesis with major findings and possible explanations for them</td>
</tr>
<tr>
<td>- the purpose of the investigation</td>
<td>0 = No problem statement or interpretation of data support for hypothesis; 1 = Incomplete problem statement or interpretation of data support for hypothesis; 2 = Correct/complete conclusion/interpretation of data support for hypothesis; 3 = Well-written conclusion/interpretation of data support for hypothesis; 4 = Well-written conclusion/interpretation of data support for hypothesis with major findings and possible explanations for them</td>
<td></td>
</tr>
<tr>
<td>- hypothesis supported/not supported</td>
<td>0 = No problem statement or interpretation of data support for hypothesis; 1 = Incomplete problem statement or interpretation of data support for hypothesis; 2 = Correct/complete conclusion/interpretation of data support for hypothesis; 3 = Well-written conclusion/interpretation of data support for hypothesis; 4 = Well-written conclusion/interpretation of data support for hypothesis with major findings and possible explanations for them</td>
<td></td>
</tr>
<tr>
<td>- the major findings</td>
<td>0 = No problem statement or interpretation of data support for hypothesis; 1 = Incomplete problem statement or interpretation of data support for hypothesis; 2 = Correct/complete conclusion/interpretation of data support for hypothesis; 3 = Well-written conclusion/interpretation of data support for hypothesis; 4 = Well-written conclusion/interpretation of data support for hypothesis with major findings and possible explanations for them</td>
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</tr>
<tr>
<td><strong>9. Application</strong></td>
<td>To what degree are the applications recognized and interpreted?</td>
<td>0 = No recommendations, applications, or new question recognized; 1 = Incomplete or vague recommendations, applications, or new question recognized; 2 = Apparent recommendations, applications, or new question recognized; 3 = Recommendations, applications, and new question clearly recognized; 4 = Significant well-written recommendations, applications, and new question recognized</td>
</tr>
<tr>
<td>- Improvements to the investigation</td>
<td>0 = No recommendations, applications, or new question recognized; 1 = Incomplete or vague recommendations, applications, or new question recognized; 2 = Apparent recommendations, applications, or new question recognized; 3 = Recommendations, applications, and new question clearly recognized; 4 = Significant well-written recommendations, applications, and new question recognized</td>
<td></td>
</tr>
<tr>
<td>- Use of the findings</td>
<td>0 = No recommendations, applications, or new question recognized; 1 = Incomplete or vague recommendations, applications, or new question recognized; 2 = Apparent recommendations, applications, or new question recognized; 3 = Recommendations, applications, and new question clearly recognized; 4 = Significant well-written recommendations, applications, and new question recognized</td>
<td></td>
</tr>
<tr>
<td>- New question(s) to be investigated</td>
<td>0 = No recommendations, applications, or new question recognized; 1 = Incomplete or vague recommendations, applications, or new question recognized; 2 = Apparent recommendations, applications, or new question recognized; 3 = Recommendations, applications, and new question clearly recognized; 4 = Significant well-written recommendations, applications, and new question recognized</td>
<td></td>
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<tr>
<td><strong>10. Display Attributes:</strong></td>
<td>- free standing</td>
<td>0 = Unsatisfactory quality of display – more than three attributes are missing; 1 = Poor quality of display – only two or three attributes are missing; 2 = Average quality – only one attribute missing with minor errors and of fair quality; 3 = Good quality – all attributes present and with few if any minor errors; 4 = Superior display – all attributes present and of exemplary quality</td>
</tr>
<tr>
<td>- correct grammar/ spelling</td>
<td>0 = Unsatisfactory quality of display – more than three attributes are missing; 1 = Poor quality of display – only two or three attributes are missing; 2 = Average quality – only one attribute missing with minor errors and of fair quality; 3 = Good quality – all attributes present and with few if any minor errors; 4 = Superior display – all attributes present and of exemplary quality</td>
<td></td>
</tr>
<tr>
<td>- clear and legible</td>
<td>0 = Unsatisfactory quality of display – more than three attributes are missing; 1 = Poor quality of display – only two or three attributes are missing; 2 = Average quality – only one attribute missing with minor errors and of fair quality; 3 = Good quality – all attributes present and with few if any minor errors; 4 = Superior display – all attributes present and of exemplary quality</td>
<td></td>
</tr>
<tr>
<td>- attractive visual display</td>
<td>0 = Unsatisfactory quality of display – more than three attributes are missing; 1 = Poor quality of display – only two or three attributes are missing; 2 = Average quality – only one attribute missing with minor errors and of fair quality; 3 = Good quality – all attributes present and with few if any minor errors; 4 = Superior display – all attributes present and of exemplary quality</td>
<td></td>
</tr>
<tr>
<td><strong>11. Participation</strong></td>
<td>To what degree did each group member contribute to the project?</td>
<td>0 = Fulfilled none of the duties in their assigned role; 1 = Fulfilled a few of the duties in their assigned role; 2 = Fulfilled half of the duties in their assigned role; 3 = Fulfilled most of the duties in their assigned role; 4 = Fulfilled all the duties in their assigned role</td>
</tr>
</tbody>
</table>

**Total Points** __________________    **Letter Grade** ______________________

**Please print and attach to the back of your display board**
Science Fair Rules and Regulations

1. Number one rule… think safety first before you start. Make sure you have recruited an adult to help you.
2. Never eat or drink during an experiment and always keep your work area clean.
3. Wear protective goggles and gloves when doing any experiment that could lead to injury.
4. Do not touch, taste or inhale chemicals or chemical solutions.
5. Respect all life forms. Do not perform an experiment that will harm an animal or any living thing.
6. All experiments should be supervised by an adult!
7. Always wash your hands after doing the experiment.
8. Dispose waste/trash properly.
9. Use safety on the internet! Be sure to let an adult know about what websites you will be visiting, or have them help you search.
10. If there are dangerous aspects of your experiment, like using sharp tools or experimenting with electricity, please have an adult help you or have them do the dangerous parts.
11. Adults can help, in fact we want them to get involved. They can help gather materials, supervise your experiment and even help build the display!
12. Experiments are required over collections and models. You will not score very highly unless you do an experiment. You will be judged on the use of the Scientific Method. 13. You cannot bring the materials of your experiment for the display or perform the experiment live. You will only be judged on your presentation and board. You can however, mount things on your board. If you do mount things on the board, try not to mount something expensive that you bought and make sure you have things mounted securely so they don't fall off. YOU MAY NOT MOUNT ANY FOOD OR ORGANIC MATERIALS!
13. Displays must be on display boards. For your convenience, display boards and title strips will be available for purchase on campus for $6.00 per set in the Science Lab. Sales will begin the week of April 18th.
Science Fair Project Guidelines

• This project is done **entirely** at school. Research, printing etc. can be done at home
• This project is worth 3 Science grades for the 4th Quarter
• Experiments done off campus must be approved by the classroom teacher FIRST

*I have reviewed the Science Fair Packet online and Guidelines with my child (student scientist) and we understand all requirements, rules, due dates and necessary information for a successful Science Fair Project. I understand that the Science Fair Packet materials are to be used to support in planning and completing the Science Fair Project.*

Parent Signature: _____________________________________ Date: ______
Telephone/Contact Number: ________________________________

Student Signature: _____________________________________ Date: ______
Student’s Name (Print): ________________________________
Teacher’s Name: ________________________________

☐ My Group Partners are:
   (4th & 5th Grade ONLY)
   __________________
   __________________
   __________________
   __________________

*Please print this form and return to your child’s classroom teacher*