DRES STEM Fair 2017
Parent/Student Night 3
11/16/17
6.30 pm to 7.30 pm

Agenda
6.30 Review of Timeline
6.35 Review of Required Submissions
6.40 Review of Submission Formats
6.45 Work with Parents and Students on Google slides
Required Submissions for the STEM Fair Project

Please make sure you have a slide for each section
QUESTION

• Type your question here.
RESEARCH

- Type the name of your resources for your project. Use the format presented in the Research Outline Document.
- Type a brief summary of what you learned from each resource.
HYPOTHESIS

• Should be in an IF, THEN, BECAUSE statement:
  - If I ___________________________ then
    _______________________________ because
    _______________________________.
• Should tell reasons why the hypothesis is made.
MATERIALS

• Should be easily attainable.
• Some measurement materials can be borrowed from Deerfield Run.
• Should be appropriate to the child’s age.
• Should be safe.
• Put into list form
PROCEDURE

- A set of numbered steps followed by the child during the experiment.
- Should be written in a clear, sequential manner.
- Steps should show that the experiment is repeated and recorded at least three times.
- Should include *how much* of the materials are used in each step.
VARIABLES

- **Independent Variable**: this is the only thing that is changed in the experiment.
- **Dependent Variable**: This is the outcome that is measured in the experiment.
- **Controlled Variables**: each factor in the experiment that is kept the same, to keep the experiment a fair test of what is being tested.
RESULTS
Data Table

- DATA: A chart with data should be posted on the board.
- Data should be measurable. Students can count, keep time, or use the metric system.
- Data should be collected at least three times for each variable.
- The chart should include an average of the trials.
RESULTS

Graph

- **GRAPH**: Averages of data from the chart should be in an appropriate graph and posted on the board.
- **Line graphs** (which show change over time) and **bar graphs** (which compare) are popular.
- The graph can be made on paper by hand, or on a computer.
WRITTEN EXPLANATION

• THIS IS NOT YOUR CONCLUSION
• Summarize and analyze the data you collected in your table and presented graphically in the previous pages.
  ■ EX: The average time bounce height was almost the same for all balls of approximately the same shape, size and mass.
• Include any trends you notice.
  ■ EX. The trend that I notice is that there is no significant change.
CONCLUSION

• This should be the same information you present in your Research Findings Document, written in a paragraph.
• Should be in the Claim Evidence Reasoning (CER) format.
• State your claim. This is the answer to the question.
• State the evidence that supports your claim by referring to the data from your investigation. State if your hypothesis is supported by the data. YOU MAY NOT CHANGE YOUR HYPOTHESIS TO MATCH THE DATA.
• Explain the reason that the data supports the claim using scientific facts to that you learned from your research.
REFLECTION

• Write a paragraph explaining if you would do anything differently next time.
• Any results that were surprising to you.
• Any factors that may have affected your data sample.
This should be a personal thank-you to anyone who helped you on the project.