

C2E Science Fair

The students at C2E in grades 4-8 will participate in a mandatory school science fair. Grades 3 and under MAY do a project to share with their class, but it is not required. **The reasoning for participating in a science fair is that students learn more through the process of developing and running an experiment that is of interest to them.**

Dates:

August: determine topic and begin developing question.

September: Research your topic and question and develop your hypothesis

October: Develop your experiment and begin running it.

December: Lab write up and Power Point presentation development

January: School Science Fair

*The dates are early this year so that there would be the possibility of entry into the **Denver Metro Regional Science & Engineering Fair** for 6-8 grade students. I am in the process of determining eligibility for C2E and what the criteria are for participation.*

Here are a few sites that may help in developing a project. The first 2 are excellent resources.

<http://www.sciencebuddies.org/>

<http://school.discoveryeducation.com/sciencefaircentral/Getting-Started.html>

http://www.melodyshaw.com/Science_Fair_Central.html

<http://hschealth.uchsc.edu/sciencefair/>

Last year's web site for the Denver Metro Regional Science and Engineering Fair includes forms that would need to be filled out to compete. This is for reference only; updated forms would be on a new site.

Step 4: Develop an experiment to test your hypothesis. Type and save on flash/thumb drive.

List all materials you will need.

Write out step by step procedures for doing the experiment.

You should be able to give your written steps to someone else and they will be able to perform the experiment just as you did. Make sure to include when you made observations or took measurements.

Note what your variable and control group in the procedures.

Due in October

Written Procedures-step 4

10 points (-2 each day late)

Step 5: Lab write up. To be typed double spaced in Times New Roman size 12 font. Save on flash/thumb drive.

1. **Purpose (big question) stated in a complete sentence – 3 points**
2. **Hypothesis stated in complete sentences and explained why they thought this- 3 points**
3. **Experiment:**
 - a. **materials – 2 points**
 - b. **Detailed step by step instructions for completing the experiment - 8 points**
4. **data – 4 points**
5. **analysis of data –**
 - a. **Did the experiment test your hypothesis? – 2 points**
 - b. **How do you know? – 2 points**
6. **Conclusion**
 - a. **Was your hypothesis correct?– 2 points**
 - b. **What would you change in the experiment and why – 2 points**
 - c. **What are some new questions you have? – 2 points**

Steps 1-4 are already completed and saved onto a flash/thumb drive and can simply be copied into a new document for the write up.

Due in December

Lab write up

30 points (-5 each day late)

Step 6: Power Point presentation, to be completed and saved on flash/thumb drive.

The PowerPoint presentations can be worked on throughout the process of conducting the experiments and students will have some class/study hall time to work on them. The PowerPoint will include the following slides:

1. **Title page – 1 point**
2. **Big Question – 1 point**
 - a. **explanation of big question – 2 points**
3. **hypothesis – 1 point**
 - a. **explanation – 2 points**
4. **5-8 interesting facts from research – 5 points**
5. **Experiment:**
 - a. **Materials – 2 points**
 - b. **Detailed step by step instructions for completing the experiment – 6 points**
 - c. **Control/variables stated – 2 points**
6. **4-5 Observations from experiments – 4**
7. **data – 4 points**
8. **analysis of data – 4 points**
9. **conclusion – 3 points**
10. **references – 3 points**

The slides **MUST** be in the above order, however if additional pages need to be added because all of the information cannot be included on one page, that is fine

Due in December

PowerPoint

40 points (-5 each day late)

100 points total – for each day late, the work will be graded and then depending on how many days late it was, points will be subtracted (points per day are stated above)

Presentations and Judging

Once the presentations are completed, they will be shown in small groups during a science class. The other students in the group will judge the presentations and fill out a short evaluation form. The students will be the first judges because it is important that the students recognize the outstanding work that they and their peers can do. Based on these evaluations, the top 4-5 students from each class will be decided. The top investigations (as chosen by the students) will go on to be judged by a panel.

The Presentations will be shown to parents and guests during the school day. Each class will have ½ hour and all of the students will show their presentations on the lap tops. The presentations that will be judged further will be projected onto the wall.