Columbine Hills Elementary

Science Fair Handbook

Calling All Young Scientists!

Columbine Hills Elementary will host a Science Fair on

Thursday, November 16, 2023.

All CHE students are eligible to participate.

To Participate:

1. Come up with an experiment idea.
2. Fill out and submit the registration form.
3. Receive project approval from the Science Fair Committee.
4. Write your Hypothesis and Conduct your experiment.
5. Create a project board presenting your experiment.
6. Bring your project to school on the day of the science fair.
7. Present your project to the judges.
8. Bring your family to Family Science Night to see your project display. **The rules and guidelines for participating in the Science Fair are outlined in this handbook.**

If you have any questions, please ask your teacher,
Come Up with an Experiment Idea  

***Reminder your name MUST be on the front of your project.

Rule 1: Your project must be completed by yourself or with your sibling (if you are in grades K-3). If you are in grades K-3 you may complete your project with your sibling. However, students will all be judged individually and separately. Make sure both of you know the project well!

Rule 2: Your project must be an experiment that tests a question.  
There are two types of projects: Models and Experiments. A model, display, or collection shows how something works, but doesn’t test anything. They are cool to look at but do not use the scientific method. These types of projects are not allowed at the CHE Science Fair.  
An experiment explores a question and looks to find the answer using the scientific method. These types of projects are what you must do for the CHE Science Fair.

Rule 3: Your project must use the scientific method.

Rule 4: You must be interested in your experiment.
Rule 5: Your experiment must be respectful, responsible, and safe.
Your experiment cannot be dangerous, it cannot hurt any animals or people, it cannot hurt or damage any property, and must be safe for you.

Fill Out and Submit the Registration Form

Rule 6: You must fill out and submit the registration form by the deadline.
The Science Fair committee needs all the information on the registration form. We want to make sure your project is following all the rules so you aren't disqualified. We also need to have your contact information so we can contact you with important information and reminders. We also need to know how many projects will be at the science fair. Your form must be submitted by the deadline.

Receive Project Approval from the Science Fair Committee

Rule 7: You must receive project approval from the Science Fair Committee.
You will receive an email from the Science Fair Committee when your project is approved. Make sure you get this email! Reach out to columbinehillspta@gmail.com if you do not get the email. If your project is not approved we will work with you to revise your project.

Write your Hypothesis and Conduct your Experiment

Rule 8: Your project must have a clear hypothesis.
Your experiment needs to have a hypothesis. What do you think will happen? Write it down! The judges will be looking for your hypothesis during the Science Fair.

Rule 9: You must have parental supervision and help for your experiment.
Science uses teamwork. Smart scientists always surround themselves with other smart scientists or with people who know how to ask questions and find answers. It is acceptable and necessary to ask a trusted adult for help. Just remember, please do not let them do your project. The judges will know when too much help has been given.

Rule 10: You must be safe.
Please be safe with every part of your experiment. Never eat or drink during an experiment. Always keep your workspace clean. Wear protective goggles when doing an experiment that could lead to an eye injury. Do not touch, taste, or inhale chemicals. Dispose of waste properly. Always wash your hands after doing an experiment. Do not break any district policies, or state, local or federal laws.

Rule 11: You must document your experiment by collecting data and taking pictures. Your project board will need to have data and pictures showing your experiment. Don't forget to create these while doing your experiment—it will be too late after you are finished!
Create a Project Board Presenting your Experiment

Rule 12: You must have a project board that displays your project.
After completing your experiment, you need to create a project display board. This display board will show off the results of all your hard work.

Rule 13: Your project board must be a tri-fold board that is 36” x 48.”
You can buy these project boards at most stores (like Target or Walmart). You can also buy one from the office for $5.

Rule 14: Your project board must include the following 10 elements.
Your project should include the following elements. The judges will be looking for all of these!

1. Your Name
2. Your Grade
3. Question – Write the question you are testing.
4. Hypothesis – Write what you think is going to happen.
5. Materials – Write all the things you used to do your experiment.
6. Procedure – Write the steps you took to do your experiment.
7. Data – Write down all of your data. These should be charts and/or graphs.
8. Pictures – Add pictures of your experiment.
9. Results – Write what happened in your experiment.
10. Conclusion – Write what you learned and if your hypothesis was correct, or what you learned if your hypothesis was incorrect.

Bring your Project to School on the Day of the Science Fair

Rule 15: You must bring your project board to school on the day of the Science Fair. Bring your project board to the gym the morning of the science fair. There will be a spot marked with your name. Set up your project at your spot.

Rule 16: You may not have live animals, dangerous chemicals, or open containers. You are welcome to bring objects related to your experiment to display with your project board. However, you cannot bring any live animals or dangerous chemicals. Any containers you bring must be covered—you cannot bring anything that will spill. You also cannot physically demonstrate how you did your experiment.

Rule 17: You must set up your project board before school starts—you cannot be late for class! Be sure to give yourself enough time to get your project board set up. You cannot be late for class because you are setting up your project.

Rule 18: Your grown-up must be out of the building before the start of school. A parent or trusted grown-up can come with you to help set up your project, but they need to leave before school starts. If your grown-up is staying to volunteer for the Science Fair they need to sign in at the main office.
Rule 19: You should dress to impress the judges.
Scientists always look neat and dressed up when they present their research. You should too!

Rule 20: You must be judged by three (3) different judges.
Three different judges will come and talk to you. First, you will explain your experiment. Tell them everything! Tell them about your question, hypothesis, procedure, data, results, and conclusions. Tell them in your own words. You cannot demonstrate how you did your experiment, you may only talk about it. Use your board to remind you what you did, but don't just read off your board (that is boring to judges!). Talk loud, be clear and direct. Next, the judge will ask you questions and talk to you about your project. Answer their questions and listen politely when they talk to you.

Rule 21: You should bring a book with you when you go to the gym for judging.
When it is time for your judging, someone will come to get you from your classroom. You will be brought to the gym. Stand next to your board and wait for judges to come to you. In between judges, you may sit and read your book. When you have talked to three (3) different judges, you may return to your classroom.

Bring your Family to Family Science Night to see your Project Display

Rule 22: You must be proud of your project.
If you can, bring your family to see your project during science night. Your award certificate and your judging results will be waiting for you in the gym.

Rule 23: You must take your project board home with you the night of the Science Fair. Everything that you brought to school for the Science Fair must be taken home that night. Please leave your project on display until 7:00 pm so that everyone has a chance to see your project.

Rule 24: YOUR NAME MUST BE ON the FRONT of YOUR BOARD
Judging Scale: 4 = Excellent  
3 = Good  
2 = Fair  
1 = Poor  
0 = Not Attempted

**Project Board**
1. Check each of the elements that are present on the project board.

___ Student Name ___ Student Grade ___ Question  
___ Hypothesis ___ Materials  
___ Procedure  
___ Data  
___ Pictures  
___ Results  
___ Conclusion  

___ Number of Elements Present

2. Visual appearance of project board. 0 1 2 3 4

**Science Experiment**
3. The question is clearly stated. 0 1 2 3 4 4. The hypothesis fits the question. 0 1 2 3 4
5. The list of materials is complete. 0 1 2 3 4 6. Procedures are complete and thorough. 0 1 2 3 4 7. Data graphs are neat and readable. 0 1 2 3 4 8. Pictures are relevant. 0 1 2 3 4 9. Results are relevant. 0 1 2 3 4 10. Conclusions are relevant. 0 1 2 3 4

**Student Presentation**
11. The student was confident with their project. 0 1 2 3 4 12. The student answered your questions. 0 1 2 3 4 13. The student was polite to you. 0 1 2 3 4

**Overall Project**
14. The effort put in by the student. 0 1 2 3 4 15. The student (not an adult) did most of the work. 0 1 2 3 4 16. The originality of the project. 0 1 2 3 4

**Feedback for the Young Scientist**
Suggestions for Improvement: