Park Forest-Chicago Heights School District 163

Science Fair Handbook
6th Grade

Revised July 2022

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Staff Responsibilities

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Principals:

Building Secretaries:

- Photocopy and distribute Science Fair packets to each classroom
- Receive and store Science Fair boards for their school
- Distribute Science Fair boards to classroom teachers for Science Fair

Teachers

- Teach scientific method, experimental design, proper scientific ethics and process
- Conduct and manage 6th grade Science Exposition
- Read and review Science Exposition/Fair applications
- Review questionable applications
- Prepare students for oral project presentations
- Place ribbons and certificates by display board after judging is completed
- Print out rubric and certificates for 6th grade Science Exposition
- Assist with Science Exposition/Fair awards night
- Conduct family science fair night to assist parents & students create science projects
- Type out student names on rubrics

School Activities and Events Coordinator

- Assist in coordinating all Science Fair dates with technology department and maintenance
- Coordinate set-up for parent nights and science fairs with school science team for each school's Science Fair
- Invite all Science Fair and Science Exposition judges for each school's Science Fair
- Coordinate snacks for Science Fair judges
- Send thank you letters to judges
- Coordinate all Science Fair dates with principals
- Order and distribute all ribbons, medals, certificates, and trophies
- Give order information to Instructional Services office

6th Grade Science Demonstration or Model

How to Choose a Topic

6th graders who participate in the Science Exposition must do a demonstration or model project

Demonstration or Model Project: A demonstration or model illustrates a known scientific concept or phenomenon. The student will complete research in order to show how a science topic "works." Some samples are listed below.

- Explain the water cycle
- Explain how Earth experiences the seasons
- Why do oceans have low and high tides?
- Explain various space phenomena: phases of the moon, black holes, galaxies, or Solar System.
- Classify living vs. non-living things
- Classify different types of rocks
- What happens when you leave liquids in sunshine?
- Classify butterflies and moths
- Classify different trees in your neighborhood
- Show how the Fibonacci sequence is found in nature
- Explain why the acid in soda pop is harmful to teeth
- Model or diagram the ocean floor
- Diagram one of the body systems
- Label the layers of a rainforest
- Make a mini greenhouse to grow plants
- Classify clouds
- Identify ways to attract butterflies to a garden
- Create models of molecules
- Classify liquids as acid or base
- Diagram layers of the Earth
- Discover everyday magnetic objects
- Demonstrate how the acid in soda pop cleans dirty coins
- Classify living things into groups
- Make a fruit battery
- Investigate Global Warming
- Identify uses of solar power
- How are differently pitched sounds made?
- Demonstrate the way scientists use weather instruments such as anemometers, barometers, thermometers
- Make a model or diagram of the
- International space station or Space Shuttle
- Diagram the night sky, showing constellations
- Classify birds as carnivores or herbivores

Demonstration/Model Project Directions

1. Read to learn about your topic. Choose a topic; you may select a topic that is not on the suggested list. Begin to get information about your topic from the Public Library and other resources, such as the school library or the internet (with parental consent).

2. Complete the Science Exposition Application have it signed by your parent or guardian, and turn it in to your teacher. Once your application is approved by your teacher, you may begin your project.

3. Now that you know more about your topic, decide how you will present your new knowledge: you could do a demonstration, make a model or draw a diagram. Talk to your parents or guardians about finding or buying materials for your project. Figure out what you will put on display. Make notes as you complete each step of your project.

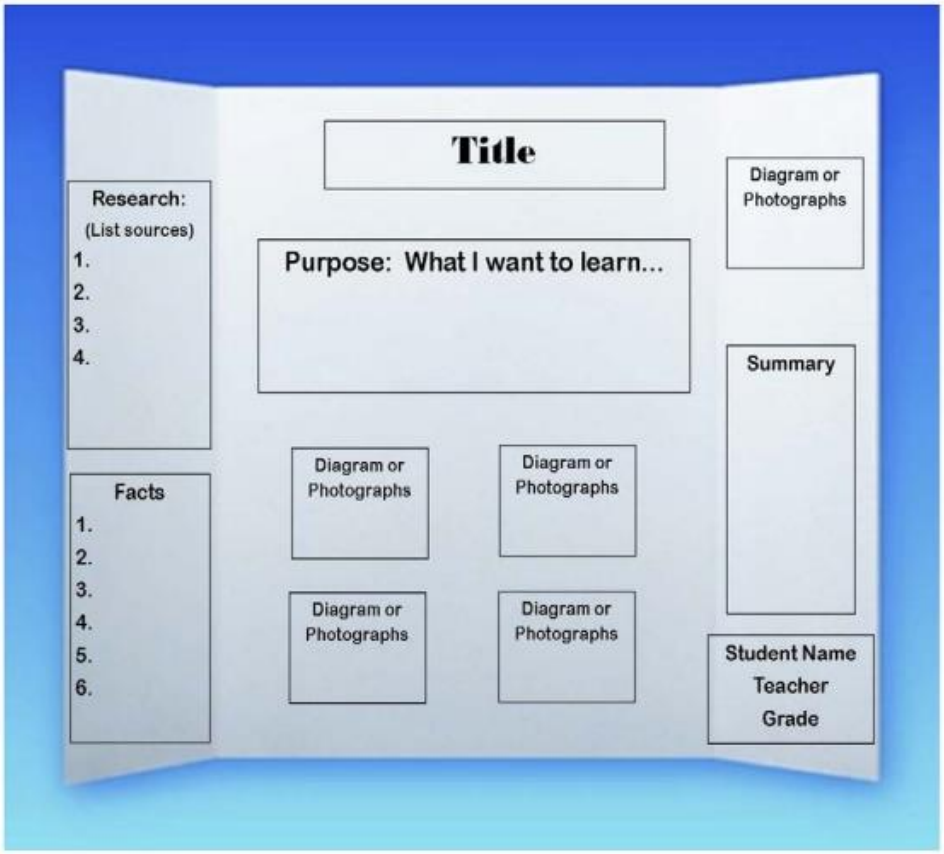
4. A written report is optional. If you decide to write a report, you will write a summary of what you have learned about your topic. Turning in a copy from the Internet or an encyclopedia IS NOT the same as writing a report. Your report must be in your own words. Judges can tell if something is just copied from another source!!

5. You now need to create a display board. Draw a rough sketch of what your display board will look like. Everything you put on your display board must be your own work. NOTHING should ever be printed off the Internet or copied out of a book, cut out, and glued on a display board. Students always need to read the information and rewrite it IN THEIR OWN WORDS!!! Have adults proofread your project for errors. Correct the errors!

** The following information must be written on your display board: project title, student's name, school, teacher, and grade

Science Fair Display Layout

Your board doesn't have to look exactly like this sample. Please create an attractive and informative board that shows what you have learned about your topic.



Science Fair Application
for Demonstration or Model Projects

All participants must fill out an application. Once your project is approved you will receive a science display board. Applications are due by:

Name _____Grade _____Teacher_____

A. **Purpose:**

_____

_____

B. **Research: List your sources (i.e. books, website etc.)**

1. _____
2. _____
3. _____
4. _____
5. _____

C. **Materials (List the materials you will need to do the demonstration or model project (i.e. diagrams, science board) (You may or may not need all lines).**

1. _____
2. _____
3. _____
4. _____
5. _____

Parents/Guardians Signature _____

School District 163 Science Exposition Judging Form
6th Grade Demonstration Projects

Project Number_____ Student Name _____ Grade _____

Teachers Name _____

Project Title _____

_____Oral Presentation (4 points)

- ☐ The student demonstrates understanding of the topic.
- ☐ The talk is well organized and relates to the topic.
- ☐ The student provides answers in complete sentences.
- ☐ The student makes good eye contact and is easy to understand.

_____Project Board (5 points)

- ☐ The display demonstrates organization.
- ☐ The display is colorful and eye-catching.
- ☐ The display is easy to read and contains 5 facts and a summary.
- ☐ The display is neat and grammatically correct.
- ☐ The information is grade appropriate.

_____Knowledge Acquired (2 points)

- ☐ The student has used a minimum of 3 sources.
- ☐ The project demonstrates creativity and critical thinking.

_____Total Points **Judges Signature_____**

___Outstanding: 11 pts.
___1st Place: 8-10pts.
___2nd Place: 5-7 pts.
___3rd Place: 2-4 pts.