Lake Central Science Fair Project Guide

It's time to start planning for the Lake Central Science Fair! Projects may be completed individually or in pairs. Science Fair Project Guide-Click on this link to see all help at once, or click any of the links below for specific assistance on that step.

Each project should be based on a scientific experiment and use these steps:

- Ask a specific **QUESTION**.

  For example: *Do birds prefer to eat when it is sunny or cloudy?*

- Conduct **RESEARCH** to find out about the topic. Write your research findings in paragraphs to complete a research paper.

- Devise a plan, or experiment, to answer the question with measurable data.

  For example: *I will set up a bird feeder. I'll count the number of birds eating at the feeder when it is sunny and when it is cloudy.*

- Write a **HYPOTHESIS** that answers the question and tells what you think will happen.

  For example: *I think birds prefer to eat in sunny conditions.*

- List your **CONTROLS** (things that are held constant, or the same) and your **VARIABLE** (one thing that is changed).

  For example: *My controls are the same bird feeder, same type of bird food, same time of day, etc. My variable is whether it is sunny or cloudy.*

- Create a timeline and carry out the **EXPERIMENT**.

- Complete more than one trial to validate your results.

  For example: *In this experiment, the birds were observed on multiple days.*

- Make careful observations and record in an observation log or journal. These are the **RESULTS**. Display them with pictures, graphs, charts, etc.

  For example: *The average number of birds at the feeder on sunny days was eight; the average number of birds at the feeder on cloudy days was three.*

- Answer your question based on your results. This is your **CONCLUSION**.

  For example: *Birds prefer to eat when it is sunny.*

LC Science Fair Guidelines

Science Fair

Guidelines for Display Boards

1. The exhibit size is limited to 76 cm (30 inches) front-to-back, 122 cm (48 inches) side-to-side, 274 cm (108 inches) floor-to-top.
2. The exhibit must be self-supporting. Exhibit material cannot be fastened to the walls and the use of tacks or nails in the tables is prohibited.
3. If a request for an electrical outlet was checked on the student entry form, the student must supply the electric cord.

Guidelines for Multimedia Presentation

- Option 1 - Create presentation using Google Slides and access files online.
- Option 2 - Create presentation using PowerPoint and store on flash drive.

Students must be able to pull up presentations on school computers.

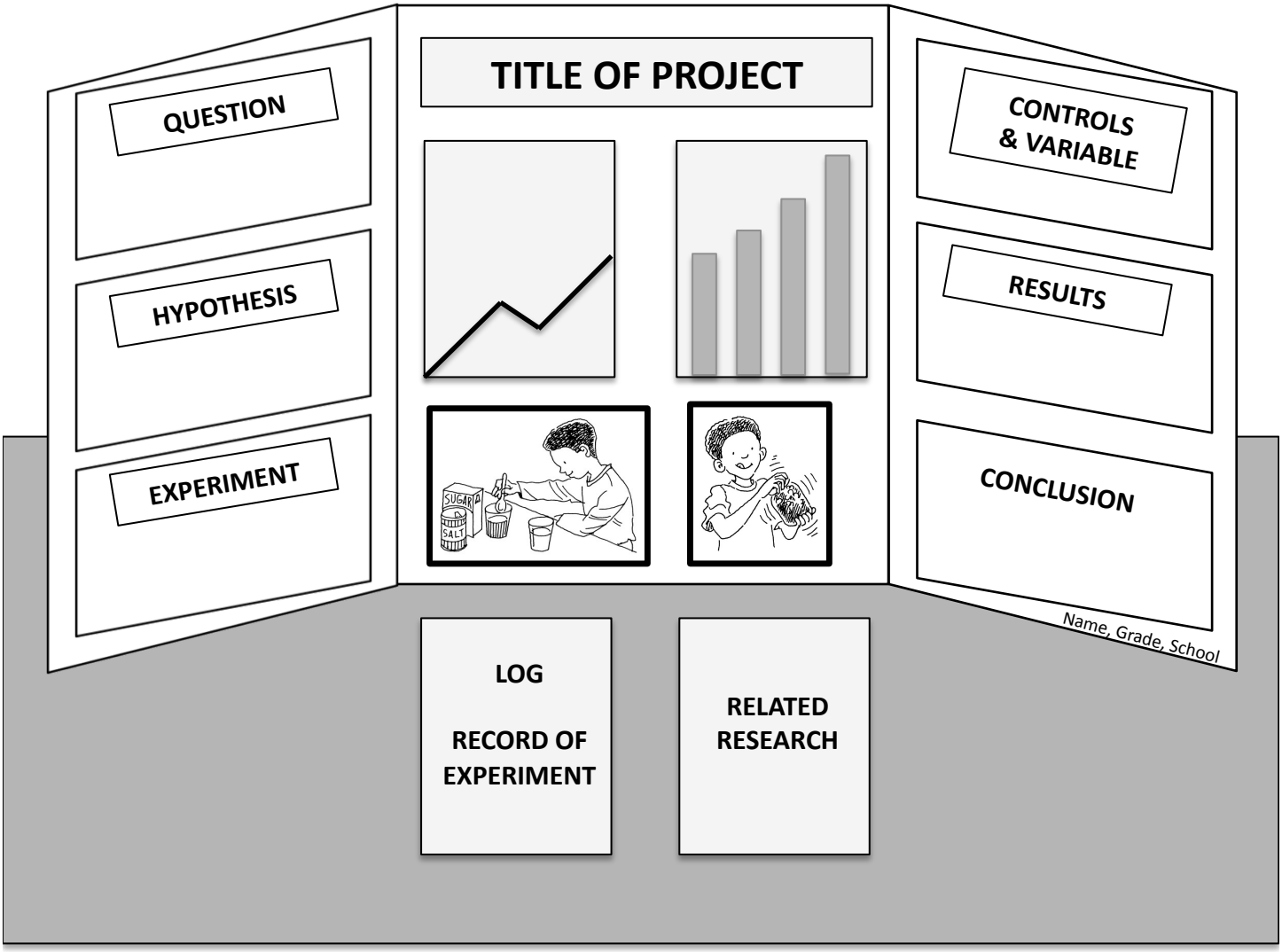
NOT ALLOWED

- Living organisms, including plants
- Human or animal food, including popcorn, seeds, chewing gum, or soda
- Any liquids, household/laboratory chemicals including water
- Any containers with liquid
- Organisms, fungi, mold, cultured growths, spoiled food
- Soil, sand, or waste samples
- Taxidermy specimens or parts
- Preserved vertebrate or invertebrate animals
- Human/animal parts or body fluids (for example: blood, urine) (Exceptions: teeth, hair, nails, dried animal bones, histological dry mount sections, and completely sealed wet mount tissue slides)
- Plant materials (living, dead, or preserved) which are in their raw, unprocessed, or non-manufactured state (exception: manufactured construction materials used in building the project or display)
- Poisons, drugs, controlled substances, hazardous substances or devices
- Dry ice or other sublimating solids
- Sharp items (syringes, needles, pipettes, knives)
- Flames or highly flammable materials
- Batteries with open-top cells
- Chemicals
- Tanks that have contained combustible liquids or gases
- Projects with moving parts that have unprotected belts, pulleys, chains, or pinch points unless for display only and are not operated
- Class III and IV lasers
- Operating high voltage electricity projects
- Glass on display
- Pressurized tanks

Display – Option 1

Science Fair

One option for displaying your project is a three-sided board.
The example below shows one possible way to set it up.



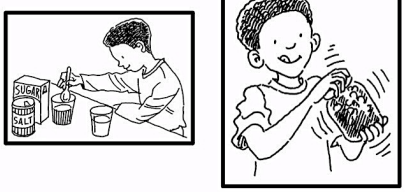
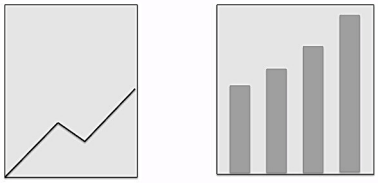
All participants should display a **title**, **question**, **hypothesis**, **experiment** (steps you took), **controls and variable**, **results**, and **conclusion**. An observation log or journal, which is a written and/or pictorial record of the experiment and observation, and related research may be added to the board or placed on the table as support.

Students may display additional materials on table; however, no potentially dangerous material may be exhibited. Please check LC Science Fair Guidelines carefully to be sure that all items displayed with your project are allowed.

Display – Option 2

Science Fair

The second option for displaying your project is a multimedia presentation. The example below shows one possible way to set it up.

Title of Project Name School Dates	Question	Research
Hypothesis	Experiment	Controls & Variable
Documentation 	Results 	Conclusion

- Create slides to display **title**, **question**, **research**, **hypothesis**, **experiment** (steps you took), **controls and variables**.
- Create slides with **documentation** of your experiment. Include text and photos showing what you did and what you observed.
- Create slides with graphs and/or diagrams to show your **results**.
- Create slides to display your **conclusion**.