

SCIENCE  
EXPO  
NIGHT IS  
FEBRUARY 5,  
2015

# 2015 Canyon Vista SCIENCE EXPO Entry Form



## TURN IN ENTRY FORMS IN THE FRONT OFFICE.

If you wish to start on your project over winter break, turn in your entry form by the  
**EARLY DEADLINE: 2:05 PM ON FRIDAY, DECEMBER 12, 2014**

*(Participants will receive a project review form the week of December 15, 2014)*

All projects must be turned in by the **FINAL DEADLINE: 2:05 PM ON FRIDAY, JANUARY 9, 2015**

*(Participants will receive a project review form the week of January 12, 2015)*

### ENTERING SCIENCE EXPO AS A(N) (select one):

- Class (one entry form per class, approval will be forwarded to teacher)  
 Group (one entry form per group, approval will be forwarded to first participant name listed)  
 Individual

Participant Name(s): \_\_\_\_\_

Participant Grade/Teacher: \_\_\_\_\_

Each student participating in the Science Expo will receive a Super Scientist t-shirt. Please indicate the t-shirt size for your student. For groups or classes, please indicate t-shirt size for each student. Attach a list on additional pages, as necessary.

Youth: S  M  L  XL       Adult: S  M  L  XL

Primary Contact Name (teacher or parent): \_\_\_\_\_

Email: \_\_\_\_\_ Telephone: \_\_\_\_\_

### SCIENTIFIC INQUIRY QUESTION:

Does \_\_\_\_\_ affect \_\_\_\_\_?  
(Independent Variable) (Dependent Variable)

**KEY DATES:**      **Information Session (optional):** Thursday, December 4, 2014, 1:00-2:00 pm, Science Lab/Room 29  
**Project Drop-off:** Wednesday, February 4, 2015, 7:00-8:00 am or 2:00-3:00 pm, Multi-Purpose Room (MPR)  
**Science Expo Night:** Thursday, February 5, 2015, 5:00-7:00 pm, Multi-Purpose Room (MPR)

I understand:

- **No animals** or **hazardous chemicals/materials** may be used for projects.
- **Adult supervision** and **good safety practices** are required to be used at all times.
- Canyon Vista PTA, Canyon Vista Elementary School and event volunteers are not responsible or liable for any damage, injury, harm, etc. resulting from conducting science projects or participation in the Science Expo.
- Project displays will be limited to a 36"H x 48"W, tri-fold self-standing display boards. **Props are not allowed at Science Expo** due to concerns regarding safety, space, and spills. Any props found in the Science Expo will be removed and given to a teacher.
- Display boards should be dropped off on **Wednesday, February 4, 2015, between 7:00 and 8:00 am or 2:00 and 3:00 pm.**
- Display boards will be available for viewing during school and Science Expo Night on **Thursday, February 5, 2015, from 5:00 to 7:00 pm.**
- All the guidelines and procedures set forth in the Science Expo packet.
- I may submit photos of the participants (listed above) conducting his/her/their scientific study to be included in a slide show that will be shown during Science Expo Night. Submitted photos may also be included in the 2014-2015 Canyon Vista yearbook and released to the media.
- By signing below, I give permission for the participants (listed above) to participate in the 2015 Canyon Vista Science Expo.

\_\_\_\_\_  
Parent/Guardian/Teacher Signature

\_\_\_\_\_  
Date

Contact one of the CV PTA Science Expo Co-Chairs with any questions:  
Triss Chesney (chesney24@aol.com or 949-338-8139) or  
Amanda Natzke (amnatzke@yahoo.com or 949-491-4881)

A program of the 2014-2015 Canyon Vista PTA. Not printed at CUSD expense.

Canyon Vista  
**PTA**  
everychild.onevoice.

# 2015 Canyon Vista SCIENCE EXPO Information

## KEY DATES

Information Session (optional)	Early Deadline (if you want to start your project over winter break)	Final Deadline (all projects)	Project Drop-off	Science Expo Night
<u>Thursday, December 4, 2014</u> 1:00 to 2:00 pm Science Lab (Pod D, Room 29)	<u>Friday, December 12, 2014</u> 2:05 pm Front Office	<u>Friday, January 9, 2015</u> 2:05 pm Front Office	<u>Wednesday, February 4, 2015</u> 7:00 to 8:00 am or 2:00 to 3:00 pm Multi-Purpose Room (MPR)	<u>Thursday, February 5, 2015</u> 5:00 to 7:00 pm Multi-Purpose Room (MPR)

## WHAT IS THE SCIENCE EXPO?

Science Expo is an opportunity for students to conduct a scientific inquiry to share with their peers and community. The purpose is to encourage curiosity and enthusiasm for science. Students will conduct a scientific inquiry and prepare a display board.

## WHEN AND WHERE IS THE SCIENCE EXPO?

Science Expo Night is on Thursday, February 5, 2015, from 5:00 to 7:00 pm, in the MPR.

## WHO MAY PARTICIPATE?

Any Canyon Vista student may enter as an individual, group, or class.

## HOW DO I PARTICIPATE?

- Attend the optional Information Session on Thursday, December 4, 2014, from 1:00 to 2:00 pm in the Science Lab (Pod D, Room 29).**  
A sample project will be presented. Attendance at the Information Session is not required to participate in Science Expo.
  - Develop a scientific question to study.** "Does \_\_\_\_\_ affect \_\_\_\_\_?"
  - Complete and return the Science Expo entry form (first page of this packet) to the front office, by one of the following deadlines:**
    - Early Deadline: 2:05 pm on Friday, December 12, 2014.** Turn in your entry form by this date if you want to start your project over winter break. This is helpful for projects which involve growing plants or take a few weeks to see results. Participants will receive a project review form the week of December 15, 2014. A hard copy will be forwarded to your teacher for distribution.
    - Final Deadline: 2:05 pm on Friday, January 9, 2015.** This is the final deadline for all projects. Participants will receive a project review form the week of January 12, 2015. A hard copy will be forwarded to your teacher for distribution.
- Entry forms must be received by the Final Deadline to participate.** All projects are reviewed for safety and subject to approval by CVPTA and CVES Principal. Please do not begin your project until it has been approved.
- Conduct a scientific study.** Remember to have adult supervision and use good safety practices.
  - Take photos of students and their scientific study.** Submit photos of students conducting their scientific study to Tricia Burke at [triacoronadoburk@sbcglobal.net](mailto:triacoronadoburk@sbcglobal.net). Use "Science Expo Slide Show" in the subject line. Submitted photos may be included in a slide show that will be shown during Science Expo Night, included the 2014-2015 Canyon Vista yearbook, and released to the media.
  - Prepare a display board.** Display boards (36"H x 48"W, tri-fold, self-standing) are available in stores, such as Michaels (watch for 40% off coupons!) and Staples. Contact Mr. Mahoney if you need financial assistance to purchase a display board. Be sure to include photos of your scientific study on the display board.
  - Drop off your display board on Wednesday, February 4, 2015, between 7:00 and 8:00 am or 2:00 pm and 3:00 pm in the MPR.**
  - Attend Science Expo Night on Thursday, February 5, 2015, from 5:00 to 7:00 pm, in the MPR.** Student Scientists will have the opportunity to showcase their projects and explain their findings to visitors. Classes will have the opportunity to view the projects during the school day with their teachers on February 5, 2015. Please note: Projects will not be judged.
  - Take your display board home at the end of Science Expo Night.**

### \*\*\* Please Remember:

- **No animals or hazardous chemicals/materials** may be used for projects.
- **Adult supervision** and **good safety practices** are required to be used at all times.
- **Props are not allowed at the Science Expo** due to concerns regarding safety, space, and spills. Any props found in the Science Expo will be removed and given to a teacher.
- CV PTA, Canyon Vista Elementary School, and event volunteers are not responsible or liable for any damage, injury, harm, etc. resulting from conducting science projects or participation in the Science Expo.

Contact one of the CV PTA Science Expo Co-Chairs with any questions:  
Triss Chesney ([chesney24@aol.com](mailto:chesney24@aol.com) or 949-338-8139) or  
Amanda Natzke ([amnatzke@yahoo.com](mailto:amnatzke@yahoo.com) or 949-491-4881)

# 2015 Canyon Vista SCIENCE EXPO Project Help Guide

## SCIENTIFIC PROCESS

1. Choose a **Question** to investigate ("Does \_\_\_ affect \_\_\_?" works well for investigations).
2. Determine **Constants** (things that stay consistent in experiment), the **Independent Variable** (the one thing you change in the experiment) and the **Dependent Variable** (the one thing that changes based upon the independent variable) for your experiment.
3. Conduct **Background Research** and get advice on your topic.
4. Develop a **Hypothesis** based upon your background research.
5. Decide on **Procedures** you will use to test your hypothesis. Be sure to run at least 3 trials.
6. Make a list of **Materials** you will need. Gather your materials.
7. Conduct your **Investigation**. Collect **Data**. (Be sure to have adult supervision and use good safety practices).
8. Organize your data. Summarize your **Results**. Use charts and graphs.
9. Write the **Conclusion** based upon the results of the investigation. Compare to hypothesis.
10. Consider any future investigations to answer other questions or extend your experiment.

## SELECTING A SCIENTIFIC INQUIRY TOPIC

When considering a project topic, ask yourself:

- What are your interests?
- Are there any questions you have asked or pondered?
- Do you prefer Earth, Life or Physical Science?
- What sparks your curiosity?
- Consider: Does \_\_\_ affect \_\_\_?

## SAMPLE SCIENTIFIC INQUIRY QUESTIONS

### **BIOLOGICAL:**

1. How does age affect a person's reaction time?
2. What is the effect of different soil types on plant growth?
3. Do different types of fertilizer affect plant growth?
4. What are the effects of sugar on growth of yeast?
5. How does pulse rate change with body temperature?
6. Does the size of the seed affect the plant's growth?
7. How does the temperature affect the number of seeds that germinate?
8. How do different forms of exercise affect heart rate?
9. Does the color of the environment affect a plant's growth?
10. How does salt affect the growth of rye grass seeds?
11. How does environment affect the growth of mold?
12. What are the effects of cleaning agents on the growth of bacteria?
13. Will different liquids affect the germination of seeds?
14. Does water temperature affect the growth of hydroponic plants?
15. What effect does acid rain have on plants?
16. How do different types of water affect bread mold growth?
17. Do different additives in water prolong the life of freshly cut flowers?
18. How does the pH of the soil affect seed germination?
19. What is the effect of light energy on bacteria?
20. How does the amount of disinfectant affect the growth of algae?

### **PHYSICAL:**

1. What are the effects of different colored containers on the retention of heat?
2. What is the effect of placement of weight on a plane flight?
3. Does the temperature of water affect the time it takes to freeze?
4. Does heat affect the speed of crystallization?
5. Does an electromagnet get stronger as the current goes up?
6. Will different liquids evaporate at different rates?
7. Do different metals conduct heat at different rates?
8. Does the size of a soccer ball affect how high it will bounce?
9. How does corrosion affect different kinds of metals?
10. Are different materials better insulators of heat?
11. How does the angle a rocket is launched affects its trajectory?
12. Do boats carry more weight in tap water or salt water?
13. How do different types of landscaping affect erosion?
14. Will different liquids affect the amount of electrical current that passes through them?
15. Will various substances affect the time it takes an ice cube to melt?
16. Do different kinds of water affect the rate a nail will rust?
17. Do different geometric shapes have varying structural strengths?
18. Does temperature affect the bonding of glue?
19. Does the shape of a paper airplane affect its flight time?
20. How do lubricants affect the amount of friction?

**Looking for more topics?** Try searching online or in books for "Elementary Science Fair Questions."



# Sample Science Expo Display Board

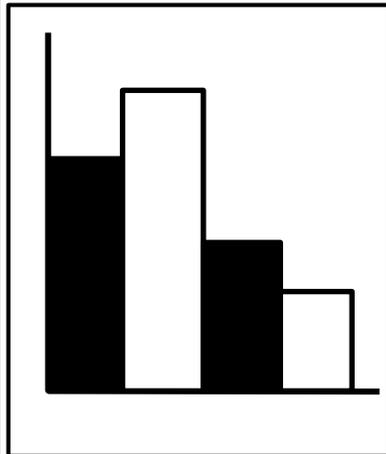
36 inches (high) x 48 inches (wide)  
tri-fold, self-standing board

\* Note: This is a sample layout. Your display should include the same elements, but may vary in layout.

## DATA

Trial 1	#	#	#	#
Trial 2	#	#	#	#
Trial 3	#	#	#	#

## GRAPH



## Scientific Inquiry QUESTION

By: Name/Grade/Teacher

PHOTO(S)

## HYPOTHESIS

I think . . .  
because . . .

## CONCLUSIONS

The results showed . . .  
My hypothesis was . . .  
because . . .

## MATERIALS

- 
- 
- 
- 
- 

## PROCEDURES

- 1.
- 2.
- 3.
- 4.
- 5.

## CONSTANTS

- 1.
- 2.
- 3.

## VARIABLES

The independent variable  
was \_\_\_\_\_.  
The dependent variable was  
\_\_\_\_\_.