

# ExploratoRio2017info

EXHIBITOR INFO • SUPPORT STAFF INFO • CTF POINT VALUE REFERENCE

**READ THIS DOCUMENT CAREFULLY—TWICE—AND KEEP IT FOR FUTURE REFERENCE**

## OPEN HOUSE • WEDNESDAY, APRIL 5

### ExploratoRio Explanation

ExploratoRio is a small-scale version of the Exploratorium\* museum in San Francisco. It consists of low-cost versions of Exploratorium exhibits built by physics students. These exhibits will be on display Open House day (minimum day schedule) and in the evening. Students build and display exhibits in teams of two or solo. Other students provide ExploratoRio support; they act as a production crew.

### Exhibit Development Timeline

1. APPLICATION. The Exhibitor Team application must be complete **before** a recipe can be adopted.
2. RECIPE ADOPTION. Your team may adopt a recipe after school or during lunch beginning on the posted start date. Adoption involves making a photocopy of the exhibit recipe and returning the original within one day.
3. RESEARCH. Study the science/perception behind the exhibit. Use the textbook and other resources to become an “expert” in the science behind your exhibit. You **will** be quizzed! Produce a sheet describing the scientific principles and defining important terms. Include useful diagrams and label them.
4. WORKING EXHIBIT. You must show the instructor a working exhibit on the date set by the instructor or forfeit the recipe to another exhibitor. Showings occur **after school only**.
5. SET-UP. Tuesday (day before Open House), between 5pm and 6pm, in B-8, and B-11. No classroom or storage room space is available for storage before this time.
6. EXPLORATORIO DAYTIME. 7:50am-1:00pm
7. EXPLORATORIO NIGHTTIME AND CLEANUP. 6:30pm-8:30pm

### EXHIBIT Scoring considerations

Participation in ExploratoRio makes you eligible for CTF Points†. The number of CTF Points you are awarded will be determined by a number of considerations.

#### 1. General Responsibilities:

- a. Research and Explanation. Upon approval as an exhibitor and assignment of an exhibit, you will be expected to research the principles underlying your exhibit. You will be expected to develop instructions for your exhibit and submit a written copy of them to the instructor. You must also write a “PhyzGuide”-quality handout describing
  - i. how your exhibit works (including a clear, labeled diagram),
  - ii. the fundamental principles it illustrates, and
  - iii. applications of those principles in the real world.

**Make 20 copies of your PhyzGuide to distribute to visiting elementary school teachers.**

- b. Construction. Your team must build the exhibit on your own. You must find and purchase all materials for your exhibit. When you adopt an exhibit, you will be given an appointment date and time for showing the working product. It is important that your exhibit functions correctly at that time. (Not that you’ve simply built something that seems to follow construction instructions, but that you have a functioning exhibit that works effectively.)

- c. Exhibition. You are expected to have **one** person at your exhibit at all times during ExploratoRio Daytime and Evening Exhibitions. Stay with your exhibit; do not wander away from it. Do NOT conduct the demonstration of your exhibit; that’s for the visitors to do. They DO it; you EXPLAIN it! *Show enthusiasm for your exhibit and the physics involved!* While supportive of and impressed by the other exhibits, you are “selling” your exhibit as being the coolest in the show: be friendly, be animated, etc. *Exhibitors must enjoy explaining their project to young children.*

- d. Notes to the Future. You are also expected to provide notes on your exhibit for future exhibitors: what works, what doesn’t work, where to get stuff, what might be cool to try, extensions or alternate forms of the exhibit, etc. Your notes will replace any that you were given, so include the wisdom that previous exhibitors gave to you in your notes to future exhibitors. Notes are to be submitted in both printed and electronic formats (Word or PDF). Email the electronic notes to dean@phyz.org. **Notes to the Future are due the first Tuesday (that is also a school day) after ExploratoRio.**

2. Meeting the Timeline Obligations. It is important that you have a working exhibit by the appointment.

3. Meeting the Exhibiting Obligations. Set-up, ExploratoRio Daytime, and ExploratoRio Nighttime.

4. Difficulty. Assuming all other obligations are met, the level of difficulty (as determined by past experience) determines the maximum number of points you will be awarded. Final scores are determined **subjectively** by your instructor. Point maximums are as follows:

**Level I** • Duo = 60 points each; Solo = 75 points

**Level II** • Duo = 80 points each; Solo = 100 points

**Level III** • Duo = 100 points each; Solo = 120 points

Research your potential exhibit prior to adoption. Check the online Notes to the Future. Some exhibits are more costly than others. **Do not** adopt an exhibit recipe if you cannot get it together and make it happen. “Flaking” precludes another team from taking the exhibit. The penalty for flaking is the loss of CTF up to the number of CTF points you could have earned on the exhibit. Flake on a Level III and you get –100 CTF points, etc. **Seriously.** Difficulty levels will be posted the day **after** ExploratoRio. Adopt on the basis of **interest**.

### Grading:

20% On-time construction + “show & tell” to Mr. Baird,  
20% On-time set-up and complete take-down,  
20% Complete coverage during all exhibition hours,  
20% Recipe return, PhysGuide & Notes to The Future,  
20% Enthusiasm and quality of visitor interaction.

### YouTube Bonus

Create a video demonstration of your exhibit for additional points. Prepare and rehearse a script to show and explain your demonstration. Record and edit the video to the best of your abilities. The final product must be YouTube-able (in one of these formats: .avi., .mov, .mpg, .mp4, or .wmv). It must also be no more than five minutes in length. **Up to 40 points are available to the very best videos.** Videos will be uploaded to YouTube and/or other approved video sharing web resources, access set to “Public,” so submission of a video implies permission to distribute. Grading is *highly* subjective. Poorly produced videos will earn very few points. You are capable of greatness, so be great!

### Getting Started and Words to the Wise

Once your team has an exhibit recipe (or an idea of your own), you will have to get materials to build it with. See the Notes to the Future documents (in print and online). Online resources: [phys.org](http://phys.org) > “ExploratoRio Resources” > “Notes to the Future”.

**TAP Plastics** • ph 481-7584 • M-F 8-6\*, Sa 9-5\* • 4538 Auburn Boulevard (Plastic and plastic mirror)

**NOTE TO EXHIBITORS FOR MIRRORLY A WINDOW, DUCK INTO KALEIDOSCOPE, LOOK INTO INFINITY: USE PLASTIC MIRRORS!**

**Emigh Hardware** • ph 482-1900 • M-F 7-9\*, Sa 7-8\* Su 8-8 • El Camino Blvd. (near Watt Ave.)

**Blue Collar Supply** • ph 383-1442 • M-F 8-5\*, Sa 10-4\* • 4871 Florin Perkins Road (Odd stuff)

**HSC Electronics** • 4837 Amber Lane • ph 338-2545 (Electronic stuff, magnets)

**Western Feed & Pet Supply** • Check local listings for contact info • (Cow magnets)

**Fry’s Electronics** • Northgate & I-80. (Electronics)  
\*call to confirm business hours

**Online science suppliers** • Are not Amazon Prime and do not deliver in the next day or two. More like the next *week* or two. Plan accordingly. BTW: Did you check Amazon?

It would be wise for team partners to share daytime and nighttime exhibiting duties. Especially daytime, as space will be tight. From 7:50am to 1:00pm, the room is more or less mobbed with big kids (other physics students) and little kids (elementary school students). You will explain your exhibit more times than you can count.

*Enthusiastically each time!* Remember that if you are not

patient and good-natured with little kids, ExploratoRio is not for you.

### Select Support Staff ExploratoRio CTF Point Opportunities (others are posted)

Successful production of the ExploratoRio requires a few talented publicists, photographers, and general assistants. The descriptions below are brief; see the full description sheet for more complete details.

**ADMINISTRATIVE ASSISTANT** assists instructor and exhibitors during Exhibit Set-Up (Tuesday 3:00-6:15pm), ExploratoRio (Wednesday 7:30am-1:45pm; 6:15pm-9:30pm), and a variety of administrative tasks before and after. Your job is to keep the instructor happy, calm and sane! (60 or 90)

**ELEMENTARY CLASS HOST:** Arrange with an elementary school teacher to have their class visit ExploratoRio during the day. You must also host them when they come to ExploratoRio. (50 pts/class for up to two classes; half that rate for additional classes. E.g., four classes would be worth 150 pts)

**PHOTOGRAPHERS** are needed to record the events of ExploratoRio. *Photographers have their own camera, battery power “for days,” and empty memory card capacity that will store hundreds and hundreds of images.* Photograph exhibitors and participants interacting. Experienced photographers are needed to do this well; composition is the key. Each photographer must submit one set of JPEG’s. Shifts will be Wednesday periods 1-3, Wednesday periods 4-6, and Wednesday 6:30pm-8pm. (40/shift)

**SETUP:** Assists instructor in preparing room for ExploratoRio *Tuesday*, 3-5pm. (30)

**TAKE-DOWN:** Assists in returning room to classroom configuration, Wednesday 8:00pm-9:00pm. (20)

**BANNER MAKER** paint and hang banners around campus advertising ExploratoRio. Most of this work needs to be done Monday and Tuesday just before ExploratoRio. *Banner Crew must also take down banners from 8:30pm - 9:00pm ExploratoRio Night.* (40) *Must have access to butcher paper and paint.*

**CHALK SQUAD** make chalk markings on entrances and access roads that lead daytime elementary school visitors to their parking spots and then to ExploratoRio. Times: 1st period (set-up) and 12:30pm-1:00pm—after school on the minimum day (take down). (20)

**OTHERS:** See the Support Staff area for other possible positions.

†To collect **any** CTF Points for second semester, the student must be present during the scheduled Final Examination.