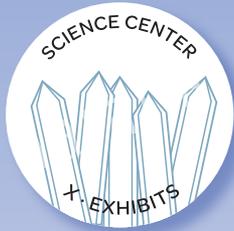


# THE ENRICHMENT PROJECT

Badge Program

larajla.com



## Science Center X: Experiment

*For kids, experiments are interactive activities that allow them to explore the world of cause and effect. Let's add this to our Science Center.*

*NOTE: Only general ideas are given for this theme. Be sure to explore ideas online or at your local library.*

## SCIENCE CENTER X: EXPERIMENT

### Steps

#### IDEAS

##### 1. **Mythbusters.**

Check out *Mythbusters*. The television show provides nothing but experiments. From question through implementation, they go through the steps with explanations of why, the process they take, etc. Some experiments may be adapted to your Science Center. Some may become jumping points to better ideas. Be sure to take notes.

##### 2. **Science fair.**

A science fair is a collection of experiments, usually for a variety of ages. You can use this for ideas or even ask for experiments / tools to be donated to your center after the fair. Do you have a science fair you can visit? If so, be sure to take your camera and a notebook.

##### 3. **Science fair online.**

You don't have to go to a local science fair. There are so many experiments, videos and more at your fingertips that you'll never run out of ideas. If you plan on pulling ideas from online resources, be sure to keep the information handy so you can revisit the site or make a quick PDF so you have the information for reference later.

##### 4. **Purchased kits.**

Check shops (online and offline) for purchased kits. You can get ideas and materials from the information on the product. Keep notes in case you want to add any of these experiments to your Science Center.

##### 5. **YouTube.**

YouTube is a fantastic place to find experiments. Depending on the video, you may find exact steps and materials to recreate it or just enjoy the experiment. Explore YouTube for supplementing your experiments.

##### 6. **Instructables.**

[www.instructables.com](http://www.instructables.com)

This web site has instructions for just about anything you can think of, including science experiments. Check out the badge program for this site or just jump over there and look around.



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larajla@gmail.com



## EXPERIMENTS

### 7. **Discovery bottles.**

Have you made bottles with rice and items inside as a puzzle game for your kids? Take it to the next level by making discovery bottles. Watch metal objects rust. Put some items which will be attracted to magnets and have the kids guess which ones they are. Show differences in fluids. Put the same object (like pony beads) in water, oil and syrup and watch how the beads move through each liquid. What other ways can you make small, self-contained experiments that can be handled and examined?

### 8. **Crystals.**

Making crystals out of sugar, salt, etc. can be fun. Experiment with different solutions and show different stages.

My daughter did this for her science fair project. She tested different types of salt in a variety of liquids to see how it affected the shape of the crystals. Our house smelled for weeks, but she won first place.

### 9. **Mix it up.**

Mixing ingredients and creating something new is another way experiment. Find recipes for one or more of the following. Which do you think kids would enjoy making and then experimenting with?

- Baking soda and vinegar
- Butter
- Oobleck
- Paints
- Plastic milk
- Silly putty
- Slime

### 10. **Boom.**

Baking soda volcanoes. Mentos and Diet Coke. Exploding pinata. What other experiments can you do that give you a startling reaction? Be sure this is done outdoors or somewhere you can easily clean.

### 11. **Static electricity.**

As kids, you like to rub a balloon on carpeting, hair or certain fabrics and then stick it to the wall or your friend's head. You can use static electricity to affect water and other materials. How might you incorporate static electricity into an exhibit?

### 12. **Make power.**

Build your own battery. Get power from a lemon or potato. Experiment with non-lethal ways to make power / electricity. Be sure to include a simple machine or mechanism that is powered by it.

### 13. **Magnets.**

An exhibit with magnets might be as simple as providing a magnet for your visitors to test on a variety of materials, allowing them to produce a hypothesis of why certain items are attracted to the magnet while others are not. You can put a paper clip into a glass container with water, providing materials to experiment with to get the paperclip out without getting wet. Of course, you can always make a compass. What other ways might you experiment with magnets?



**14. Speed, velocity and acceleration.**

What is the difference between speed, velocity and acceleration? Explore ways to use your exhibit to define, compare and demonstrate these forms of movement.

**15. Forces and work.**

Pulleys are a great experiment for showing how to lift. Showing the differences in force depending on the number and configuration of pulleys is one thing. Allowing your visitors to redesign the pulleys to decrease the force needed to lift an item is another. How might you create an interactive display that allows your visitors to learn through experiments?

**16. States of matter.**

Look at solids, liquids and gases. Of course, water is the easiest (ice, water, steam). How do they change from one form to the next? What speeds up or slows down the process? Of course, you might decide to play with a little liquid nitrogen . . . check out this link. Just be careful.

[www.instructables.com/id/Simulated-Liquid-Nitrogen-for-next-to-NOTHING](http://www.instructables.com/id/Simulated-Liquid-Nitrogen-for-next-to-NOTHING)

**17. Explore more!**

There are too many different experiments and variations to discuss everything possible you can do within the context of an activity or exhibit. Continue exploring and take notes on those that fit with your theme.

## Supplements

SUPP\_Discovery Bottles.pdf

*Tips and ideas for making discovery bottles*

SUPP\_SCR\_Experiment.pdf

*Scramble: Experiments*

SUPP\_WF\_Fav Experiments.pdf

*Word Find: Favorite Experiment*

SUPP\_Exhibit Planner.pdf

*Exhibit Planner — Pre-planning and testing questions*

SUPP\_Scientific Inquiry.pdf

*Scientific Inquiry — Printables for use with any exhibit theme*

SUPP\_Science Recipes.pdf

*Seuss cards with recipes for corn plastic, glurch and oobleck*



## Sites to Explore

[www.kidactivities.net/post/School-Age-Science-Center-Supply-List.aspx](http://www.kidactivities.net/post/School-Age-Science-Center-Supply-List.aspx)  
[www.makeuseof.com/tag/5-cool-science-experiments-check-youtube](http://www.makeuseof.com/tag/5-cool-science-experiments-check-youtube)  
[science.wonderhowto.com/how-to/create-exploding-water-246750](http://science.wonderhowto.com/how-to/create-exploding-water-246750)  
[bizarrelabs.com/control.htm](http://bizarrelabs.com/control.htm)  
[www.physics.ohio-state.edu/p670/lesson\\_plans/Bektasli-lesson.pdf](http://www.physics.ohio-state.edu/p670/lesson_plans/Bektasli-lesson.pdf)  
[www.thomasnet.com/articles/machinery-tools-supplies/simple-machine-guide](http://www.thomasnet.com/articles/machinery-tools-supplies/simple-machine-guide)  
[www.rsc.org/resources-tools/education-resources](http://www.rsc.org/resources-tools/education-resources)  
[www.exploratorium.edu/explore](http://www.exploratorium.edu/explore)  
[www.discoveryeducation.com/teachers/free-lesson-plans](http://www.discoveryeducation.com/teachers/free-lesson-plans)  
[kids.usa.gov/teachers/lesson-plans/science/index.shtml](http://kids.usa.gov/teachers/lesson-plans/science/index.shtml)  
[www.teach-nology.com/teachers/lesson\\_plans/science](http://www.teach-nology.com/teachers/lesson_plans/science)  
[www.sciencefairadventure.com](http://www.sciencefairadventure.com)  
[www.yoursciencefairprojects.com](http://www.yoursciencefairprojects.com)  
[www.sciencefair-projects.org](http://www.sciencefair-projects.org)  
[www.sciencebuddies.org](http://www.sciencebuddies.org)  
[www.freesciencefairproject.com](http://www.freesciencefairproject.com)  
[tryscience.org](http://tryscience.org)  
[sciencenetlinks.com/lessons](http://sciencenetlinks.com/lessons)  
[www.education.com/activity/science](http://www.education.com/activity/science)  
[pbskids.org/zoom/activities/sci](http://pbskids.org/zoom/activities/sci)  
[www.sciencebuddies.org](http://www.sciencebuddies.org)  
[howtosmile.org](http://howtosmile.org)  
[www.msms.bayer.us/msms/MSMS\\_Home.aspx](http://www.msms.bayer.us/msms/MSMS_Home.aspx)  
[www.smithsonianeducation.org/educators/lesson\\_plans/science\\_technology.html](http://www.smithsonianeducation.org/educators/lesson_plans/science_technology.html)

***Check out [Iarajla's Enrichment Project](#) to start your own adventure.***