

READY... SET... SCIENCE!!!



LOUISVILLE
SCIENCE CENTER

FUN SCIENCE ENRICHMENT ACTIVITIES TO DO TOGETHER.

Ramps

- Gather blocks of varying lengths, large hardcover books, and flat pieces of Styrofoam or cardboard, to use for ramps. Use different toys to experiment on the ramps. Use some with wheels and some without.
- Go outside and roll down a hill.
- Make a high ramp and roll a ball on it. Will the ball roll fast or slow? Now make a low ramp and roll the same ball.
- Visit a local park. Use the slide as a ramp. Use different items to see how they move down the slide.
- Freeze water on a cookie sheet. Use this as an icy ramp. Test different toy cars to see how they move on ice.

Questions That Encourage Wonder

- How far can you make the ball go?
- Can you make the ball go all the way across the room?
- Which ball rolls the fastest? How could we slow it down?
- What else could we make a ramp out of?
- Which of these objects do you think will roll?

Books to Enjoy

- [Ramps and Wedges](#) by Chris Oxlade
- [Roll, Slope, and Slide: A Book About Ramps](#) by Dahl, Michael, Shea and Denise
- [What Is a Plane?](#) by Lloyd G. Douglas

Shadows

- Design and make shadow puppets from cardstock and Popsicle sticks.
- Search for shadows of various objects, and try to figure out where the light is coming from to make the shadow.
- Use a flashlight to create shadows on the wall of a dark room.
- Match a group of objects to their drawn outlines.
- Use chalk for tracing shadows on cement surface, or use a large paper and marker for tracing shadows inside.

Questions That Encourage Wonder

- How could we make the shadow bigger?
- Where is the light coming from? How many things in the room give light?
- Can you find your shadow? What happens when you move?
- Can you make your shadow disappear? How?
- Do all things make shadows? Can you find something that doesn't make a shadow?

Books to Enjoy

- [Shadows and Reflections](#) by Tana Hoban
- [Whose Shadow Is This?: A Look at Animal Shapes - Round, Long, and Pointy \(Whose Is It\)](#) by Berge, Claire
- [Moonbear's Shadow](#) by Frank Asch



ICE

- Draw on paper with ice cubes colored with food coloring.
- Make a block of ice by freezing water in an empty orange juice carton or balloon and let the children look at it with magnifying glasses. Drip colored water on it to see the path it takes. Put some rock salt on top to change how it melts.
- Make a game using ice cubes, tongs and plastic tubs. See who can move the cubes fastest from one tub to the other.
- Freeze small toys inside of ice and give children small tools to be archaeologists. (Be sure to wear goggles!)
- Build with ice cubes.
- Drop some ice cubes in hot water and some in cold water. Observe the cups to see which ice melts first.

Questions That Encourage Wonder

What happens to the color as the ice melts?
What does the rock salt do? What do you think would happen if we add more?
Can you see where the water is going as it melts? Can you follow its path?
How would you describe the ice? How many words can you use to describe how it feels, looks, smells and sounds?
How could we make ice? What do we need to do?
How could we make it melt faster?

Books to Enjoy

Should I Share My Ice Cream? by Mo Willems
Sid the Science Kid: Why Did My Ice Pop Melt? by Susan Korman
Snowflake Bentley by Jacqueline Briggs Martin

UPCOMING EVENTS

Teacher Trainings

Tools for Exploring

Science is more than just having fun with experiments and activities. It is a way of thinking and doing things that allows for almost any experience from painting to block building to sand play to become a science experiment full of observing, testing, wondering, and discovering! This training focuses on core science standards and skills in early childhood education. **Feb 1& 15 @ 1215 South 3rd 4c 6-9 pm**

Getting Curious about Science

This training explored light and shadows and discussed how children are natural scientists asking questions and building theories about the world. Through group discussion and hands-on learning, participants learned that science is everywhere and can be done by asking open-ended questions and using simple, inexpensive materials. They discovered how to encourage children's science skills by shifting science activities into on-going science experiments through changing variables and trying the activities again and again.

February 25 8:30-12:30 @ Home Of the Innocents

Contact Felicia Alfred @ 502-560-7154 or Felicia.alfred@louisvilleky.gov for Teacher Training information

Family Science Night

February 23 and July 12

Get your whole school involved during special Family Science Nights just for the early childhood crowd. Family Science Nights are the perfect community-building event for teachers, staff, children, and families. Each Family Science Night includes after-hours admission to the Science Center, exclusive programming, and an IMAX film.

Free for qualifying schools during open-enrollment dates on a first-come, first-served basis. Or, book your own for \$8 per person (must pay for 200 minimum). Call 502-561-6100, ext. 6421 for additional information.

Outdoor Family Event.

February 11, 2012 6:30-8:30

What does night time mean to you? Where does the sun go? Come observe what the sky looks like in the winter months. Use a telescope to get up close to the moon's surface, listen to stories about the moon and even create a fun snack with a night time theme.

Call 502-561-6100, ext. 6421 for additional information

These programs are made possible through support from PNC Grow Up Great with Science and are a partnership between the Science Center and 21st Century Parks.



The Louisville Science Center is a grateful recipient of a significant grant from PNC's Grow Up Great program, which promotes early-childhood learning around science literacy. Over two years we have partnered, along with Community Coordinated Child Care, with six early-childhood education centers serving children from low-to moderate-income families, providing community-wide programming.