

Young children naturally build knowledge by being curious about the world around them.

When you do science with your children, you can share their sense of wonder about the natural world. They'll develop self confidence when they ask and answer their own questions.

How to get the most out of your explorations:

- **Dress for the mess**
Science explorations can be messy.
- **Take your time**
Play for as long as the activity holds your child's interest. Don't rush towards the 'right' answer.
- **Be curious**
Ask "What would happen if..." and then find out. Let your child's questions guide you.

Runaway Pepper

You can find many items in the kitchen to experiment with, including water, which is always entertaining. In this experiment, pepper sits on the surface tension of water, as though it is a thin skin on the water. Soap is used to break the surface tension in one place. The water pulls away from the soap and takes the pepper with it.

What You Need

- Pepper
- Water
- Soap
- Cup of Water

Hands-on

1. Discuss what pepper is used for.
2. Touch the granules of pepper and discuss the texture. Observe them through a magnifier if you have one. Smell them (carefully).
3. Fill the cup with water.
4. Sprinkle pepper over top.

5. Place a dab of soap on your finger.
6. Touch the pepper.

What Next?

- What happens if you use other spices? Other kinds of soap?



Questions to Ask

- Does the pepper float or sink?
- What happened to the pepper when you touched it with a soapy finger?
- Does the soap make this happen? Why?
- Will other spices work as well?

Shake Picture

It is always exciting to see how paint reacts with paper. Capture the splashing and swishing of wet paint (without splashing the walls)!

What You Need

- Thick paper
- Scissors
- Tempera paint
- Jar or plastic container with a lid

Hands-on

1. Work outside, or on a table with a plastic cover in case of spills.
2. Practice using the eye dropper with paint.
3. Using scissors, cut pieces of paper that will fit at the bottom of the jar.
4. Place a few drops of paint into the jar.
5. Close the lid tightly.

6. Shake it vigorously.
7. Take the lid off and see what happened to the paint.
8. Take the paper out and let it dry a bit.

What Next?

- Will the pattern change if you roll the jar on the table?
- Will the pattern change if you just turn the jar upside down?
- Would colours change if you added other colours of paint?
- How would the patterns change if you used thinner or thicker paint?

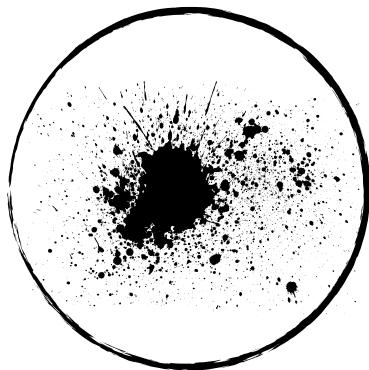


Questions to Ask

Did you make any patterns?

Imagine that your pattern is like a cloud in the sky, what does it look like to you?

Did it cover most of the paper?



Fish Race

Like in the pepper experiment, the soap breaks the surface tension of the water in one spot. The rest of the water pulls away from the soap and takes the fish with it.

What You Need

- Tub of water
- Fish cut out of cardboard (5–7 cm long)
- Hole punch
- Liquid soap

Hands-on

1. Discuss what is exciting about water. Feel the water to discuss if it is warm or cool.
2. Feel the texture and the thickness of the cardboard.
3. Make 3–4 fish from cardboard, 5–7 cm long.
4. Using the hole puncher, punch a hole in the tail. Try not to punch a hole too close to the edge.
5. Place the fish in the water at the end of the tub.
6. Place a drop of liquid soap into each hole and see what happens.

What Next?

- How would it be different if you made a bigger fish?
- What would happen if the hole was near the fish's head?
- What would happen if you added more liquid soap?



Looking for more?

More science activities for young children can be found at scienceworld.ca/preschool.html

Books:

Mouse Paint by Ellen Stoll Walsh

Purple, Green, Yellow by Robert Munsch

A Colour of His Own by Leo Lionni

DW All Wet by Marc Brown

Down the Drain by Robert Munsch

Better Not Get Wet, Jesse Bear by Nancy White Carlstrom

Websites:

www.tinyplanetsblog.com

<http://uen.org>



Questions to Ask

What happened to the fish?

Why did the fish move?

Did they move slowly or quickly?

