



Science Unit: *Matter*

Lesson 2: *Solids, Liquids, and Gases – Part 2*

School year: 2005/2006

Developed for: McBride Elementary School, Vancouver School District

Developed by: Catriona Gordon (scientist), Dorothy Crossley and Don Robertson (teachers)

Grade level: Presented to grades 2 - 3; appropriate for grades 1 - 4 with age appropriate modifications.

Duration of Lesson: 1 hour and 25 minutes

Notes: Please see the Matter unit, Lesson 1, *Solids, Liquids and Gases – Part 1*; available from the Scientist in Residence Program website <http://www.scientistinresidence.ca>

Dancing Pasta Experiment

Instead of using ginger ale and pasta, one can use raisins (small raisins work best) and soda water for this experiment.

Balloons Filled with Solid, Liquid and Gas

Objectives

Students will feel and experience the differences in properties between solids, liquids and gases using balloons.

Materials (1 set per group)

- Balloon filled with helium (optional)
- Balloon filled with air (gas)
- Balloon filled with water (liquid)
- Water balloon frozen overnight (solid)

In the classroom

Introductory Discussion

Review differences between solids, liquids and gases at the beginning of *Solids, Liquids and Gases* Lesson Plan.

Science Activity

1. Students work in groups of 3-4, with one set of balloons per group.
2. Students can feel and describe the similarities and differences between the balloons, representing the three phases of matter.



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3. Poke a hole in the balloon with water and pour the contents into a container. Notice how the liquid takes the shape of the container. Poke a hole in the balloon with air. What happens? Poke a hole in the solid ice balloon. Does it change shape? Does the balloon deflate?

Closing Discussion

Review properties of solids, liquids and gases. How did the 3 different balloons feel? Talk about the differences in density, in malleability, in feel.

References

Mellett, Peter. 2001. Hands-On Science: Matter and Materials. Kingfisher Publications. Boston. P.14.

Dancing Raisin Experiment

Name: _____

I need: _____

I predict: _____

I observed:

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I learned:
