

TEACHERS ACTIVITIES



Theme:

Eggs are remarkable in both art and nature.

Topics For Discussion:

When the goose was well, Babushka let her go even though she wanted her to stay. Discuss the importance of returning wild animals to their natural habitat after they have recuperated from an injury.



From LeVar's experiment on the program, viewers learn that eggs are strong; however, it is well known that they break easily. Discuss with students how an egg can be both strong and fragile at the same time.



Invite students to share experiences they have had with friends that are animals.

Curriculum Extension Activities:

Take a walking tour of the classroom, school building, and school grounds searching for things that are elliptical in shape. When students spot something, have them write it on small pieces of paper (about two inches long) cut in the shape of an egg. Hang a large piece of paper cut into an ellipse on the wall and glue the students' papers onto it.



After the class has watched the program, obtain a copy of the book to read to the students. Explain to them that the story on the video was adapted and that they will notice that the book contains a longer story with more details. After reading, have students decide what they consider to be the five most important events in the story. (This will require some discussion and justification and possibly voting before they arrive at five events.) Write each event on a slip of paper and put it inside a plastic egg. Put the eggs in a basket and invite students to open the eggs and arrange the events in the order in which they happened in the story.

Locate other books by Patricia Polacco and study her illustrations. What similarities do students notice among her books? Many of her stories come from her own family. Share her autobiography, *Firetalking*, with the students and make the connection between her personal stories and her fictional stories.



Patricia Polacco uses many patterns of color and shape in her drawings. Have students locate some of these patterns in *Rechenka's Eggs*. For example, there are patterns on the eggs, quilts, rugs, clothing, tablecloths, domes and buildings of Moskva, even on Babushka's chamber pot. Give students a strip of paper (such as cash register tape) and some colorful markers and have them create patterns using the traditional pysanky designs of triangles, circles, stars, and flowers. Display their patterns in the room.



Brainstorm a list of animals that hatch from eggs. Display this list in the classroom so that students can add to it as they learn more about animals. Have them research the size of different animals' eggs and record the information on the chart. Later, they might wish to cut apart the chart and rank the eggs in order by size.



Set up a series of egg "questions" for students to investigate for an entire week. Pose one question a day, such as "What is the heavier part of an egg—the shell or the insides?", "Which is heavier—a hard-boiled egg or a scrambled egg?", "Which is heavier—a raw egg or a hard-boiled egg?", "Which is heavier—a hard-boiled egg or a soft-boiled egg?", and "Which is heavier—the egg white or the yolk?" Post the question along with two egg-shaped pieces of paper, one for each of the choices. Have students make a prediction and mark a tally on the egg of their choice. Later in the day, conduct the "test" and verify predictions. At the end of the week, have an egg tasting party and sample eggs cooked in a variety of ways.



Have students do a simple adaptation of the pysanky technique. They might use a white crayon or a parafin stick to draw designs on an egg and then dip it in dye or paint it. For a paper adaptation, have students draw a design in crayon on an egg-shaped piece of paper and then paint over the design with watercolors.

Cut apart egg cartons and use the individual “cups” to make a graph in response to the question, “How do you like your eggs—fried, scrambled, or hard-boiled?”



Discuss the concept of “dozen.” Have students think of things that often come in a dozen besides eggs. Explore other collective terms, such as “a pair of _____,” “a set of _____,” “a bunch of _____,” etc. Extend this discussion to include group terms for animals, beginning with the very familiar, such as “herd” and “flock,” and moving to more unusual terms.

SUPPLEMENTARY BOOKLIST:

EGG

by Robert Burton, photos by Jane Burton & Kim Taylor (DK)

NINA’S TREASURES

by Stefan Czernecki & Timothy Rhodes, illus by Stefan Czernecki (Hyperion)

ZINNIA AND DOT

by Lisa Campbell Ernst (Viking)

THE MOST WONDERFUL EGG IN THE WORLD

by Helme Heine (McElderry)

EGGS ON YOUR NOSE

by Ann McGovern, illus. by Maxie Chambliss (Macmillan)

FIRETALKING

by Patricia Polacco (Richard C. Owen Publishers)

I CAN HEAR THE SUN

by Patricia Polacco (Philomel)

EGGBERT, THE SLIGHTLY CRACKED EGG

by Tom Ross, illus. by Rex Barron (Putnam)

CATCHING THE WIND

by Joanne Ryder, illus. by Michael Rothman (Morrow)

THE GIRL WHO WANTED A SONG

by Steve Sanfield, illus. by Stephen T. Johnson (Harcourt, Brace)

HONKERS

by Jane Yolen, illus. by Leslie Baker (Little, Brown)

Distributed by:



P.O. Box 80669
Lincoln, NE 68501-0669
Phone: 800-228-4630
Fax: 800-306-2330
Email: gpn@unl.edu
Web site: gpn.unl.edu

What A Relief



Key Words: mixing substances, properties of water

Concept: Water cannot go through wax.

Artist and author Patricia Polacco shows how Ukrainian egg dying, or pysanky, is done using layers of wax and different colors of dye to create detailed designs. This very old process known as wax relief works because wax and water do not mix, so new colors of dye cannot get to parts of an egg shell covered by a protective layer of wax. You can paint a design on paper using layers of wax and watercolor in much the same way as Patricia Polacco painted an egg.

Materials: White construction paper, uncolored wax (or paraffin) candle, watercolor paints, water, pencil.

1. With a pencil, draw a simple geometric shape on white construction paper. Fill in a portion of the shape using an uncolored wax candle as if it were a crayon. Then paint the inside of the geometric shape yellow. As you paint, notice what happens to the watercolor paint in the portion of the shape with wax, and what happens in the areas without wax. The portion of the shape covered with wax will be protected from the dye and will remain white.
2. After the painting has completely dried (several hours later), use the wax candle to fill in another portion of the shape. Then paint the inside of the geometric shape orange. The portion of the shape covered with wax this time will remain yellow and the portion of the shape covered in Step 1 will continue to remain white.
3. Repeat Step 2, this time using red paint. Then again using brown paint. Be sure to let the painting dry completely before adding the wax and each new color.
4. After you have made this picture, you may wish to try making another picture using different colors or creating a more detailed design.

Just Marble-ous

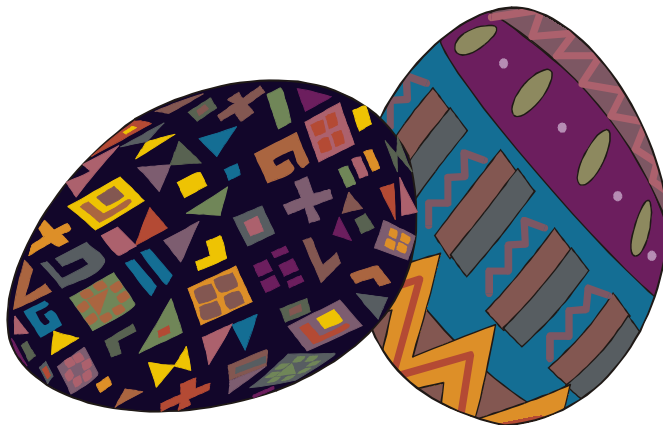
Key Words: mixing substances, properties of water

Concept: Oil and water do not mix.

In addition to Ukrainian eggs, LeVar tells about several other decorated eggs including one created using marbled paint, which can be made from oil and water-based paint. Like wax and water, oil and water also do not mix. Mix art and physical science to make marbled paper.

Materials: Small sheets of white paper about 4" x 6", a teaspoon, cooking oil, food coloring, a small clear jar with a lid such as a baby food jar, a pan or tub of water larger than the sheets of white paper, newspapers.

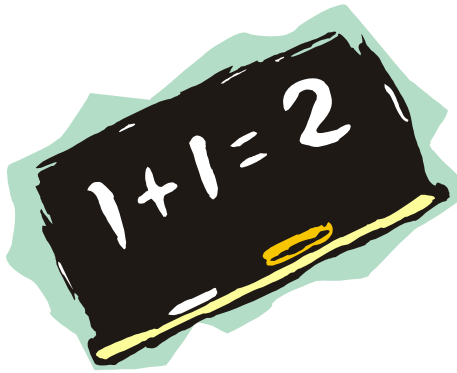
1. Place a teaspoon of oil and a teaspoon of food coloring in a jar and then put the lid on the jar. Look at the oil and food coloring in the jar. The food coloring is water based and does not mix with the oil. After making sure the lid is on tightly, gently shake the jar. Now what has happened to the oil and food coloring? Wait a few minutes and take another look. Shaking the jar caused the oil and food coloring to break up into small droplets of each, but after several minutes the oil and food coloring will be separated again.
2. Gently shake the jar again, then quickly take off the lid and pour the oil and food coloring into the pan of water. Gently stir the water.
3. Lay a sheet of white paper on the water in the pan. Count to 20 then take the paper out of the pan and lay it colored side up on some newspaper to dry. You will see patterns made by the oil and colored water on the paper.
4. After you have made a few sheets of marbled paper, you may enjoy experimenting with the process. Try using more than one color of dye, using colored water in the tub, or starting with colored paper. You can even try using a boiled egg instead of paper.



Distributed by:



P.O. Box 80669
Lincoln, NE 68501-0669
Phone: 800-228-4630
Fax: 800-306-2330
Email: gpn@unl.edu
Web site: gpn.unl.edu



- **Finding & creating patterns.** After viewing the program, obtain a copy of the book and look for patterns in Patricia Polacco's illustrations. For example, there are patterns on the eggs, quilts, rugs, clothing, tablecloths, domes and buildings of Moskva, even on Babushka's chamber pot. Give students a strip of paper (cash register tape) and some colorful markers and have them create patterns using the traditional pysanky designs of triangles, circles, stars, and flowers. Polacco's illustrations will give them ideas for colors to use. Display their patterns in the room, as bulletin board borders, edge trim for bookshelves and table tops, door and window borders, frames for student work, and the like.

Investigate the *weight* of an egg in the following ways:

- **Estimation.** Have students estimate the weight of a raw egg in different sizes (small, medium, large, extra large). Record their estimates. Weigh the eggs and compare the actual weights with the estimates.
- **Prediction.** Display an assortment of common classroom objects, such as pencils, pens, markers, erasers, rubber stamps, scissors, etc., and have students predict which ones approximate the weight of an egg. Record their predictions and make comparisons by weighing the objects.
- **Graphing.** Set up a series of simple graphs to explore problems such as these: What is the heavier part of an egg—the shell or the insides? Which is heavier—a raw egg or a hard-boiled egg? Which is heavier—a hard-boiled egg or a scrambled egg? Which is heavier—a hard-boiled egg or a soft-boiled egg? Pose one question a day. To make the graph, set up egg cartons and a basket of small plastic eggs with the heading, "Which is heavier?" Label egg cartons for each side of the problem (e.g., "raw egg" and "hard-boiled egg.") Working on their own throughout the day, students indicate their answer by placing an egg in the appropriate carton. Tabulate the results at the end of the day and conduct an experiment to resolve the problem.

Do-At-Home Activity

- **Locating elliptical shapes at home.** An egg most closely resembles the shape of an ellipse. Search the house room-by-room to find other things that are an elliptical shape, and record the information on the sheet on the next page. Have the children bring their sheets back to school, cut out the large ellipses, and put them together in an ellipse-shaped book.

Distributed by:



P.O. Box 80669
Lincoln, NE 68501-0669
Phone: 800-228-4630
Fax: 800-306-2330
Email: gpn@unl.edu
Web site: gpn.unl.edu



RR Episode:	Rechenka's Eggs Chicken's Aren't the Only Ones
Activity:	Creating a Soft-shelled Egg
Learner Objective:	The student will be able to identify what mineral makes an egg shell hard and how to remove that mineral. The student will also be able to identify that reptile eggs are soft as similar to the egg with the calcium removed.
Materials Needed:	Hard -boiled eggs Clean containers in which to put eggs Vinegar Water
Steps:	<ol style="list-style-type: none">1. Ask the students what mineral makes an eggshell hard. Discuss that it is calcium, the same mineral that makes our teeth and bones strong. Ask if they know how to remove calcium from the eggshell. The answer is vinegar.2. Pour vinegar into a clear container and carefully put in one egg. Pour water into another clear container and carefully put in another egg.3. Discuss that over the next few days they will observe what gradually happens to the egg as the vinegar removes calcium from the shell.4. In two days, repeat this process so that at the end of the experiment, you can get the eggs out and allow students to feel the changes the egg went through until the calcium was completely removed. Repeat again in two more days.5. Compare the textures of the hard-shelled egg, eggs in the process of dissolving the calcium, and the egg with the calcium removed. Discuss that this is similar to the texture of reptile eggs (turtles, snakes, and dinosaur eggs, for example).
Assessment:	Students will be able to orally identify that calcium is the mineral that makes egg shells hard and that vinegar removes the calcium/ Students will also be able to identify animals who lay soft-shelled eggs.