

Rubber Egg Science



UNITED TRIBES
TECHNICAL COLLEGE
LAND GRANT EXTENSION

TITLE: RUBBER EGG EXPERIMENT

OBJECTIVES: Students will be able to soak an egg in a common kitchen ingredient, vinegar, to dissolve its shell and make the egg “rubber”. This activity will demonstrate calcium depletion and the importance of the Dairy Food Group as part of a balanced and healthy diet.

**This experiment works best after several days. Three minimum, four or five days are ideal.*

MATERIALS:

- Twenty Raw Eggs
- Five Jars (big enough to hold the eggs)
- Gallon of White Vinegar
- Student Observation Logs and Pencils

PROCEDURES:

1. Pass out the Student Observation Logs and Pencils
2. Pour vinegar into jars
3. Add four eggs to each container
4. Record what you see (bubbles rising from the egg) *discuss*
5. Leave the egg in the vinegar for one day.
6. Remove the egg and feel it.
7. Record your observations (the egg shell will be soft) *discuss*
8. Repeat each day recording the results – *discuss observations daily*
9. *Discuss* the final results as a class to complete the activity

TEACHING POINTS:

- Eggs contain something called "calcium carbonate". This is what makes them hard.
- Vinegar is an acid known as acetic acid.
- When calcium carbonate (the egg) and acetic acid (the vinegar) combine, a chemical reaction takes place and carbon dioxide (a gas) is released. This is what the bubbles are made of.
- The chemical reaction keeps happening until all of the carbon in the egg is used up.

- When you take the egg out of the vinegar it's soft because all of the carbon floated out of the egg in those little bubbles.
- What makes our bones hard? That's right! Calcium carbonate -- the same thing that made the egg shells hard.
- Stress the importance of calcium and dairy products as part of a healthy and balanced diet.

APPROXIMATE TIME FOR PROCEDURE: DAILY - 20 MINUTES

Name: _____

Date: _____

Soft Shelled Eggs



Draw a picture of your observations.

What did I do? _____

What did I see? _____
