

## Experiment: Effect of pH on calcium carbonate shells.

to be done after activity on p. 32

### SUMMARY:

Observe the effects of acidic environments on eggshells or seashells.

### MATERIALS

- 3 eggs (same shape, size, from same carton).
- 3 beakers or clear glass jars with lids.
- tap water
- $\frac{1}{4}$  cup vinegar
- $\frac{1}{4}$  ammonia

Note: The amount of liquid required may vary according to the size of container used.

### EXPERIMENT

1. Fill one jar with 1 cup of water and  $\frac{1}{2}$  cup of vinegar. Measure the pH. Label this jar with the pH.
2. Fill another jar with 1  $\frac{1}{2}$  cups water and measure the pH. Label it with its pH.
3. Fill a third jar with 1 cup of water and  $\frac{1}{2}$  cup ammonia and measure the pH. Label it with its pH.
4. Place 1 egg into each jar and have students record observations.
5. Leave the beakers in a cool, dark place and have the students observe each day for three days.
6. On the last day, lift the shells out of the jars with a spoon. Let students carefully touch the eggs. Have students record any differences they observe.

### VARIATIONS

Experiment with seashells and with different vinegar conce