# HOME/SCHOOL CONNECTION

## Investigation 3: Brine Shrimp Hatching

Brine shrimp live in salt lakes (like the Great Salt Lake or Mono Lake) or ocean bays (like San Francisco Bay). In their natural environment, the mix of salts is fairly complex. The mix is certainly more complex than just table salt in water. Biologists who study brine shrimp have come up with a recipe for a more complete saltwater environment for the shrimp.

**Metric units**, using liter beaker and metric measuring spoons

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|---|---|
| 1 liter | Pure water |
| 20 milliliters | Rock salt (or other noniodized salt) |
| 5 milliliters | Epsom salts |
| 2 milliliters | Baking soda |

**English units**, using measuring cup and teaspoon (1 teaspoon is about 5 ml)

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|---|---|
| 4 cups | Pure water |
| 4 teaspoons | Rock salt (or other noniodized salt) |
| 1 teaspoon | Epsom salts |
| 1/2 teaspoon | Baking soda |

Stir up this brew. Let it sit in a container (like a cutoff 2-liter soda bottle) for a day or so to mellow. After the brine shrimp hatch, dump them into the new environment, hatching water and all.

Mark the water level with a piece of tape or a permanent marker. As the sea level goes down (evaporation), bring it back to starting level by adding plain water. Why plain water? Only the water evaporates, not the salts. If you renewed the level with salt water, soon the salt concentration would be too great for the brine shrimp to live.

You can keep the colony in a sunny window. The shrimp will need to eat. So dissolve a tiny pinch (seriously, a very little bit) of yeast in a little water. Put a drop of the solution in the brine shrimp container. Give the whole business a gentle stir to distribute the yeast throughout the environment. You can store the remaining yeast solution in the refrigerator. Feed the brine shrimp a bit of yeast solution every few days. Don't get the water too cloudy.