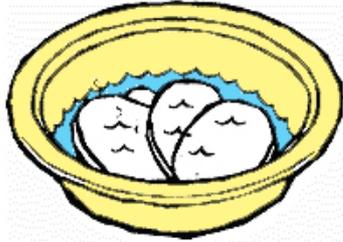


# Experiment With Nature

## Soak Some Spuds

### What you need:

Small potato  
2 bowls  
2 tablespoons salt  
Knife  
Water



### What to do:

Slice a small potato length-ways into several pieces that each have two flat sides. Place some of the pieces in one dish and the rest in another. Fill both dishes with water. Add two tablespoons of salt to one of the dishes, and label it "salt water." Let the potatoes soak for 15 minutes.

### What happens and why?

Through an action called osmosis, water moves from areas of low salt concentrations to areas of high salt concentrations. Adding salt to the water creates a higher salt concentration in the dish than in the potato. Consequently, water in a potato that is soaking in salt water migrates out, leaving behind a limp spud!

People often make celery and strips of carrot go crisp by soaking them in fresh water. What happens if you soak these vegetables in salt water?

Here are some activities you can try at home or at school. Please ask for permission from a grown-up before you begin.

## Dancing Raisins

### What you need:

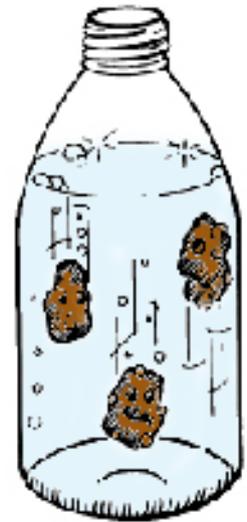
Bottle  
Soda water  
Three or four raisins

### What to do:

Fill a glass or bottle half full with soda water. Drop three or four raisins into the water. Wait.

### What happens and why?

Soda water contains dissolved carbon dioxide gas that collects on the irregular surfaces on the raisins. Once enough bubbles have collected, it will actually lift the raisins to the surface where the gas is released into the air, causing the raisins to sink once again.



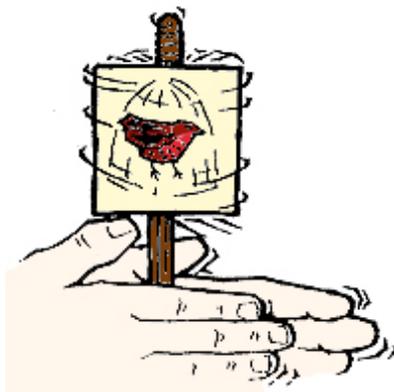
## Getting the bird in the cage

### What you need:

Pen  
Card  
Tape

### What to do:

Draw a picture of your favourite bird on a small index card. On another card the same size, draw a cage. Now tape the two cards, drawing sides out, on opposite sides of a pen. Spin the pen



between your hands or fingers. Is your bird still free or did you catch it and put it in the cage?

### What happens and why?

The bird appears to be caged. This is because of how your eyes and brain work. When you see the image of the bird, your brain holds onto the image for a short time--even though the image appears and disappears quickly. The same thing happens with the image of the cage. The two images actually overlap in your brain so the bird appears to be in the cage. The technical name for this effect is *persistence*. It is what lies behind every movie and every TV programme that you see.