

USING MAGIC AS DISCREPANT EVENTS

The Needle Through Balloon

A magic trick is an excellent way to introduce a lesson or to use as a discrepant event for an anticipatory set. It can be used to illustrate a concept, act as a starting point for an investigation, or to stimulate creative thinking. Allow students to brainstorm in an attempt to figure out an explanation for how a tick works. I sometimes have students turn in a diagram illustrating the science concepts involved for extra credit. Often there is more than one “correct” explanation.

We also challenge students to invent a magic trick or to perform “science magic” for the class and explain the science principles involved.

Example: Use balloons to talk about cells and cell membranes. The cell membrane is a semi-permeable membrane. It allows some things to pass through and prevents others from doing so. Pass a needle through the balloon to illustrate this concept.

Purchase high quality clear round balloons about 9 inches in diameter. Inflate the balloon and tie it off. Push an oiled (I use Vaseline) needle (bamboo skewers work fine) through the darker (thicker) area in the bottom of the balloon and out through the darker (thicker) area around the mouth. The balloon doesn't burst (usually). Pull the needle out of the balloon. Now poke the side of the balloon with the needle. BANG! It will burst.

You can buy the trick “Needle Thru Balloon” at a magic shop or some novelty shops.

You can use this for a problem solving activity by presenting it as a question. Challenge the students to figure out how the trick works. Ask leading questions, but don't tell the secret!

Hint: Don't blow up the balloon to its maximum size. The softer the better.

