



FOX UNDER FIRST BASE by Jim Lattimer

Universally, a ball is probably the first toy given to a child that is both treasured and coveted. A child would always like to keep it in his/her possession. No wonder Fox is fascinated by baseballs and begins to collect them from his vantage position under first base! He is heartbroken when he realizes that he must give them all back. Skunk saves the day when she gives him an "antique" baseball he can keep forever.

Balls come in all sizes, but mostly one shape, round. Tennis balls are hollow, making them lighter or less dense than golf balls which are denser and quite heavy. They sink when they land in water traps on golf courses much to a golfer's dismay! Do golf balls exist that would float or stay near the surface of the pond and still drive as well? You can amaze your students with this demo and then tell them how they can do it at home substituting a potato or an egg.

MATERIALS: empty tennis ball container, kosher salt, water, golf ball (blue if possible), food coloring

ACTIVITY: Fill container $\frac{1}{2}$ full of water and dissolve as much kosher salt as possible in the water. Kosher salt dissolves so clearly that the solution will be clear. This solution should be able to float the golf ball. Add tap water slowly down the side until the container is full. Color water with yellow food coloring if golf ball is blue; color the water blue if the golf ball is pink. Cap container and leave out on desk so that students can see it on the first day of school.

EXPLANATION: As dense as the golf ball is, the salt solution is denser, and the golf ball will float on it. At the interface (the place where the salt water and fresh water meet), the surface of the golf ball should be green (if golf ball is blue) or purple (if golf ball is pink)!

SOURCE: Chuck Matlock, 5 minute demo, ICE Activities Workshop, University of Wisconsin-Madison, 1990.

STANDARDS:

BSL: 1.1, 1.2, 1.3, 1.7, 4.6, 6.2, 6.3, 11.2, 11.3, 12.1, 12.2, 12.7, 12.8

NCTM: 4d, 10a, 10c

SCS: A1, A2, B1, B2, H2, H3, H4, H5

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