

Praxis “Making Science Fun”

Sinking Orange

Do oranges float or sink in water?

What you'll need:

- A bowl
- water
- A navel orange and one or two other fruit that can be peeled.
- A friend or helper
- paper towels (just in case)



Procedure: (Remember to be sure to have your parent's permission and they have the time to watch and help as you do your experiment.)

1. Put an orange in the empty bowl and fill the bowl with water.
2. What happens to the orange?
3. See if your helper can get the orange to sink.
4. Peel the orange.
5. Place the peeled orange in the bowl of water. What happens this time?

The Experiment:

Try other fruit that can be peeled. What are the results?

What's happening?

The orange sinks because the orange peel is full of trapped air pockets, therefore, making the orange light for its size (so it floats). The buoyant force of the water pushing up on the orange is greater than the force of gravity pulling the orange to the bottom of the bowl. This makes the orange float. We say that the orange and the other floating fruit are less dense than water. When you remove the peel the orange becomes denser, that is it weighs a lot for its size. It sinks because the orange is denser than the water.

Extension:

Life jackets (pfd -personal floatation devices) help you float the same way the peel of the orange helped the orange float. The life jacket contains air pockets that make your top half less dense than the bottom half keeping your head out of the water. Please always remember to wear a pfd when you are on a boat or raft or near deep water. It may save your life.

This experimental activity was one of many based on our “Boats and Buoyancy” grade 2 Learning Kit. Our teaching kits are loaned out for FREE to help give classroom teachers and parents of home schooled children an opportunity to explore Science in interesting ways. Please consider volunteering to speak to a class about any one of our Science learning kits described on our website. Or consider volunteering to help out at one of our community events such as the recently held Family Science Olympics which was on October 15. We would be most appreciative to hear from you.

Lorne Cooper, Regional Executive Director

PRAXIS, “Making Science Fun”. Contact Praxis at praxis@praxismh.ca, www.praxismh.ca, Tweet or follow us @PraxisMedHat, or friend us at Praxismh on Facebook. Address: c/o 200 7th Street S.W., Medicine Hat, AB, T1A 4K1
Phone: 403-527-5365, Fax: 403-527-6570.