



## Challenger's Morning Science Segment:

April 24, 2017

**Topic:** Sink or Float

**Build:** Float, sink and refloat an orange

### Credit:

<https://www.education.com/science-fair/article/fruits-vegetables-denser-than-others/>

### Materials Needed:

Pitcher of water / orange / rubber band

**Ask a friend if they think an orange will float:** Start by filling a pitcher  $\frac{3}{4}$  full with water. Next make a prediction if an orange will sink or float. Drop the orange into the pitcher of water. After observing the results, remove the rind from the orange and drop it into the water again. Notice the difference in results for the unpeeled vs. peeled orange. Finally, place the rind back around the peeled orange and secure it with a rubber band. Next drop back into the pitcher of water and observe the results. You have now successfully observed the orange float, sink and then float again!

**The science [credit: <https://www.education.com/science-fair/article/fruits-vegetables-denser-than-others/>]:**

The orange floating is a great example of how different fruits float or sink based on their density. When a fruit is less dense than water, it will float. The rind of an orange is porous and thus contains lots of air. The unpeeled orange will thus be less dense than water and floats. When you remove the rind, it allows the dense orange to sink right to the bottom of the container. The lower density of the rind means that you can put it back on a peeled orange and make it float again. Almost like a little life vest for your orange. Try out this experiment with all kinds of different fruit!

**Upcoming at the Challenger Learning Center of Maine:** Challenger holds a bi-annual e-waste event for the public and businesses from any community. The event will be held at Challenger in Bangor on Saturday, April 29, 2017 from 9 AM – 1 PM. Help support this important fundraiser and take advantage of the opportunity to recycle your computers, TVs, monitors, keyboards and more. FMI-  
[www.astronaut.org](http://www.astronaut.org)