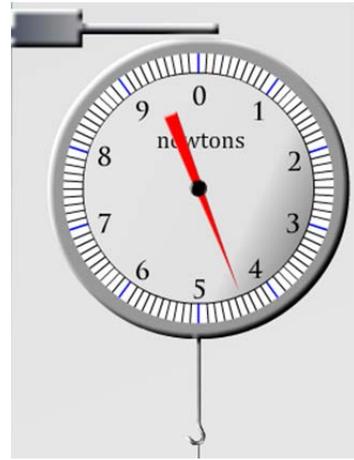


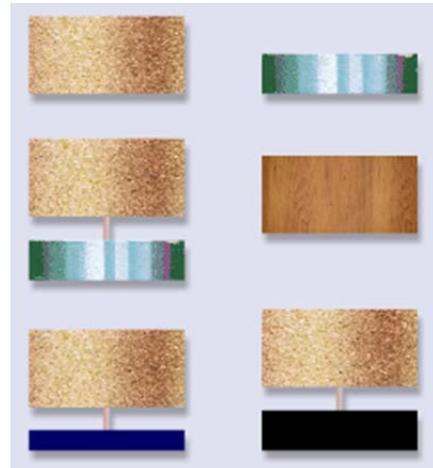
8 –Buoyancy User’s Guide:

1/30/25

The hanging scale. The hanging scale, much like one found in the produce section of a grocery store, reads the force that is exerted on its bottom hook. As masses are added, the hook gets lower and the reading is increased. The units of force for this scale are Newtons. By clicking and the scale can be raised and lowered. If there is a possibility of overflowing water, the graduated cylinder must be in place under the spigot or else moving the scale up and down will be disabled.



The masses. There are 6 different masses found in the box on the right-hand side of the screen. They are standard cork, aluminum, wood, cork attached to aluminum, and cork attached to 2 different unknown materials. These masses can be moved about on screen by clicking and dragging on each. To add a mass to the hanging scale, drop it on the hook. To add a mass to the digital scale, drop it on the measuring platform. Only one mass can be on either scale at a time, so remove other masses first by moving them back to their home on the right of the screen.



The graduated cylinder. The water displaced by the masses being lowered into the flask is collected in the graduated cylinder. The cylinder can be moved about by clicking and dragging it around the screen. Its mass can be measured by dropping it on the digital scale. To return the water to the flask, pull the hanging scale and masses up and out of the way, and drag and drop the cylinder just above the flask. Return it to its home base by dropping it below the spigot.



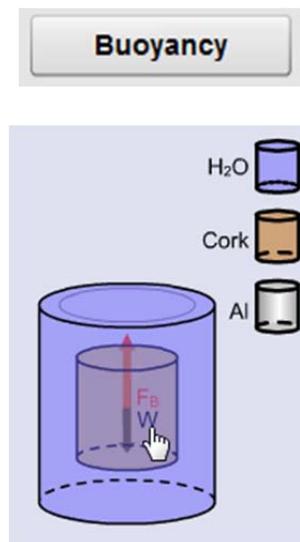
Cylinder Zoom. To better read the water level in the cylinder, just watch the cylinder zoom view on the right side of the screen. The units are in milliliters.



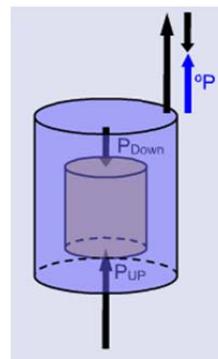
The digital scale. The digital scale reads weight in Newtons. It is precise. Only one item is allowed on the scale at a time, so remove any materials or cylinders first if something else is to be measured.



Buoyancy tool. Press the Buoyancy button to bring up a small interactive. Click any of the 3 materials to change the main one, and click and drag it to lower it into the water bucket.



Pressure tool. Press the Pressure button to bring up a small interactive. Click and drag the cork to lower it into the water bucket and see what happens.



Pressure

Snapshot. As with most of our labs, you can take a screenshot of any portion of the screen by clicking on the Snapshot icon and then clicking and dragging a box around what you want to capture. A dialog will then appear asking you what you want to call the image and where you want to save it. In most labs, a timestamp will be added to the image to keep track of it better.

