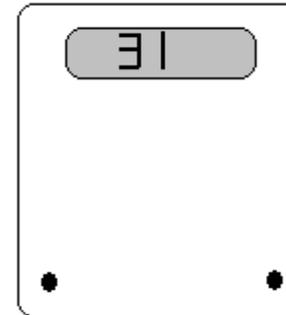


Compare mass and weight.

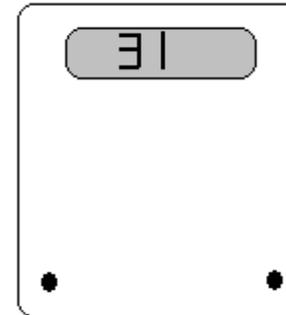


MASS	WEIGHT

Compare mass and weight.



Use a balance and a spring scale if you have both. Discuss why the balance scale would produce the same weight on the moon, but the spring scale (or digital scale) would not.



Show that air has mass by putting two balloons - the same size each - on the scale. It should balance. Now, blow one up and connect it to the scale.

MASS

A measurement of the amount of matter in an object

It is the same if the object is in space or on earth.

WEIGHT

A measurement of the force of gravity on an object

It is different in space and on earth.

Make a Balance Scale: Use duct tape to tape a wooden spoon to the counter, so the stick hangs over the edge. Hang a wire hanger on the spoon. Punch two holes in the top of two bathroom cups. Cut two equal size pieces of string or yarn. Thread the string through the holes in the cups and tie them so they hang on the hanger. The cups should be the same length from the hanger. Use paper clips as weights. They weigh approximately 1 gram each. Weight a number of small items: erasers, small toys, small cookie, etc. You can also use pennies for weights (2.5 grams each) or BB's (weights vary, often 0.25 grams.)

F&M-2 Information Pieces

<p>A measurement of the amount of matter in an object. F&M-2</p>
<p>A measurement of the force of gravity on an object. F&M-2</p>
<p>It is the same if the object is in space or on earth. F&M-2</p>
<p>It is different in space and on earth. F&M-2</p>

To Make Your MatchCard more durable:

- 1. Put the student MatchCard and instructor MatchCard back to back in a clear plastic page protector.*
- 2. Laminate the information pieces. Or you can make them sturdier by covering the paper with transparent tape prior to cutting the pieces out.*
- 3. For more ideas on how to use the MatchCards, and for keeping a notebook for review, see the Instructor's Guide.*