
Safety:

Instruments:

- two balloons
 - one long, thin, wooden splint
 - a ruler
 - a pencil
 - tape
 - pieces of string
 - a rubber ring
 - two thumbtacks
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Experiment:

- Find the center of the wooden splint using a ruler and mark the spot.
 - Push a thumbtack into the wood on both sides of this mark.
 - Tie a piece of string to the center of the rubber band.
 - Place one loop around each of the thumbtacks. Carefully check to make sure that the splint is in perfect balance.
 - Tape an empty balloon to each end of the wooden splint and recheck the balance again.
 - Then remove one balloon and blow it up. Knot the balloon shut and reattach it to its place on the splint. What happens?
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Advice for the teacher:

The splint will sink on the side where the blown-up balloon is attached.

This experiment should make it explicitly clear that air does indeed have mass.

Tip:

Do not use splints that are extremely thin or light.
