DENSITY OF AIR - NEWTONMETER

MED 01.14

Material:

Item-no.	Qty.	Description
DS090-1K	1	Claw base simple, L=200 mm
DS201-10	1	Support rod, round, L=100 mm, D=10 mm
DS400-3K	1	Bosshead cross-pattern, Demo, green
DM725-ND	1	Newtonmeter
P3120-5B	1	S-shaped assembly platform
C7320-2B	1	Stopper silicone, 17/22/25 mm, 1 hole, for SB 19
C6210-1B	1	Stopcock, plastics
DM340-8B	1	Balloons, set

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Purpose
Evidence of air density by adding air volume.

Preparation
Insert the 50 cm rod into the claw base; afterwards fix the cross-patterned bosshead to the support rod. Place the Newtonmeter on the S-shaped assembly platform for a better visibility.

Mount the weighing bar of the Newtonmeter on the bosshead with the hook facing down.

Push the tip of the stopcock into the silicone stopper, afterwards insert the silicone stopper into the opening of the balloon.

Experiment 1
Set the measuring range on the Newtonmeter to „g“(grams); afterwards turn it on and tare (set to 0).

Hang the empty balloon with silicone stopper and stopcock on the hook.

The empty balloon has a weight of ..... g

Experiment 2
Remove the balloon and open the stopcock. Now blow air into the balloon and close the stopcock afterwards.

Again tare the Newtonmeter (set to 0) before the experiment.

Now hang the inflated balloon with silicone stopper and stopcock on the hook.

The inflated balloon has a weight of ..... g