



Material:

Item-no.	Qty.	Description
DS101-1G	1	Support base, large, L=500 mm
DS093-04	1	Sliding saddle "Sepp", H=40 mm
DS300-50	1	Support rod, squared, L=500 mm, 12x12 mm
DS400-3K	1	Bosshead cross-pattern, Demo, green
DM725-ND	1	Newtonmeter "inno" 20 N / 2000 g
P3120-5B	1	S-shaped assembly platform

Weights on hooks

Purpose

To demonstrate that gravitational force (gravity) acts on masses. (Gravity = force of weight)

Preparation

Fix the sliding saddle to the support base; afterwards insert the 50 cm rod into the sliding saddle. Fix the cross-patterned bosshead to the upper end of the support rod

The weighing bar of the Newtonmeter should be mounted in the bosshead with the hook pointing down.

Experiment

Set the measuring range on the Newtonmeter to „N“ (Newton);
after turning it on hang one weight after another on the hook of the weighing bar.

Conclusion

The Newtonmeter shows the forces with which the hook of the weighing beam is pulled.
Attached masses exert such forces = forces of weight

The force of weight of a 1kg weight on hook results in a force of Newton.

Note

Conversely, the masses can be determined via the forces, which is why dynamometers are also known as spring scales.