DIVING BELL

MED 01.06

Material:

Item-no.	Qty.	Description
DM891-1T	1	Diving bell - metal bar
DM465-1V	1	Discharge beaker with stopcock
C7445-7S	1	Hose, silicone, D=7/9 mm, L=100cm
DM425-2G	1	Tower tank with scale
DM360-5P	1	Ball, D=60 mm, soft plastics, coloured

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Purpose
Demonstration of the mutual displacement of air and water on the example of the diving bell

Preparation
Place the soft plastics ball in the discharge beaker.

Screw the discharge beaker carefully to the metal bracket

Moisten the glass tube of the discharge beaker and connect the silicone hose; the diving bell is now ready for the experiment.

Pour coloured water into the tower tank until the 15 cm mark is reached.
Place the diving bell vertically in the water-filled tower tank, the stopcock has to be closed.

Experiment
The diving bell is filled with air; water does not flow inside the diving bell.

This can be observed by the (hollow) soft plastics ball floating at the bottom end of the diving bell.

When the stopcock is openend air can flow out and water starts to flow into the diving bell.

The soft plastics ball starts to ascend.

If air is blown in the diving bell through the silicone hose the water is pressed out again from the diving bell and thus the ball descends again.

Note
To work with a diving bell in a greater depth the pressure must be increased accordingly.
(Problem of decompression = slow adjustment to normal pressure after staying under higher pressure as during dives)