

## Common properties of bodies

*Density*

Relation between the mass and the volume of a body - Identical mass

**Object of the experiment**

1. Investigating the relation between the mass and the volume in the case of bodies of equal mass and different substances

**Setup****Evaluation**

Bodies of equal mass and different substances do not have the same volume.

The smaller the volume of a body of a given mass, the greater the density of the substance this body is made of.

**Apparatus**

1 Bodies of equal mass, set of 3.....	362 28
1 Single pan balance .....	315 07
1 Vernier callipers .....	311 52

**Carrying out the experiment**

- Measure the diameters and the heights of the bodies, and calculate their volumes.
- Set the balance to the measuring range 100 g.
- Put the bodies on the pan one after another and read the measuring results.

**Measuring example**

Body	Volume $V$ in $\text{cm}^3$	Mass $m$ in g
wood	38.0	30
aluminium	11.3	30
steel	3.8	30