Age 8–12

Floating and sinking

The workstations in the 'Floating and sinking' kit allow children to observe all the essential phenomena involving floating and sinking. Working together they can share what they have learned until an overall picture of the phenomenon of 'floating' can be developed and an explanation that everyone can understand can be put together.

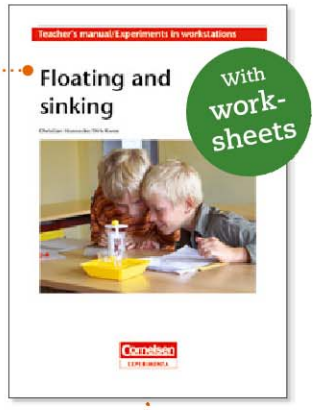
The key aspects of the experiments are based on 'boats' that the children can make from two different sorts of modelling clay: a yellow one which is lighter than water and floats and a red one which is heavier than water and therefore sinks, unless it is moulded into a shape that can float.

The box also contains balls and a cube made of materials used in the building of ships and boats: wood, steel, aluminium and plastic. Scales can be used to determine the apparent reduction in weight experienced by a body when it is immersed in water.

Included in delivery:

Teacher's manual

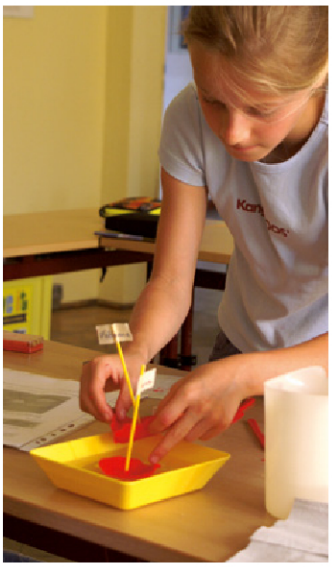
- With sheets for each work place including basic information on the topic and on the organisation of workstations
- plus supplementary educational and organisational tips about the experiments.



▶ In a case with foam insert for transport and storage (540 x 450 x 150 mm):

- Light plasticine
- Heavy plasticine
- Plastic knifes
- Knead pads
- Pastry cutters
- Water dishes
- Large and small beakers, mini beakers
- Rapid scales
- Set of weights
- Displacement cube on hook
- Set of balls, *consisting of:* Steel ball, wooden ball, plastic balls (PP and POM)
- Aluminium cube
- Metal spoon
- Suspension device, *consisting of:* Rod, thread, hook and clip
- Paper clips
- Displacement vessel
- Sponge cloth

31900 Materials for up to 12 work groups



All phenomena are examined separately in comprehensible experiments:

The carrying capacity of ships, the displacement of a body suspended in water, the buoyancy and the surface tension of water.

▶ Teacher's manual *'Experiments in workstations: Floating and sinking'*

With copy templates covering 14 workstations, where the equipment in the kit can be used in experiments:

- How to use plasticine for experiments
- The materials for the experiments
- Why does light plasticine float?
- What makes some balls of plasticine float?
- What are ships and boats made of?
- What does a ball do to the water it is in?
- How to make heavy plasticine float
- Comparing two ships
- Launching a ship and loading it
- When do ships sink?
- Does water have secret powers?
- What keeps ships afloat?
- The pond skater's trick.
- Whose ship can carry the biggest load?
- Make your own container ship
- From dugout to container ship
- Our workshop
- Our teacher does an experiment for us
- A competition: Will these ships float or sink?