

## 1.4. Magnets floating on the water

**Aim:** to investigate interacting between two magnets floating on the water

**Apparatus:** from the Low-Tech kit you will need:

- two Geomag stics,
- two small polystyrene rafts – floating boats.



Photo 1. Rafts with magnets.

### **Procedure:**

Place two magnets into two small polystyrene rafts. Put rafts on the water, remember about preserve distance between them. What happens? Watch rafts. If we put magnets that north pole of one will be near to south pole of the second magnet, we observe that magnets attract each other till they touch.

One more time put rafts on the water but turn around one raft. What happens? Watch rafts. If we put magnets that the same type of magnetic poles will be close, we observe that one of them moves rotates 180 degrees and magnets attach each other until touch.

### **Explanation:**

Between two magnets acts a magnetic force. When magnets are closed with the opposite poles, they attach each other till touch. When they are closed with the same kind of pole, they repel. After some short time one of the magnet turn around about 180 degrees and magnets attach each other until touch.

This phenomenon proceed when magnets are close enough, even when they are placed on water. When distance is longer, the attracting force is smaller and magnets aren't able to come closer.