

## Biology

- **Experiment analysis**

**Description of the experiment:** We make a hole in a potato and fill it with salt. We put the potato on a spout of a flask, in which it does not barely fall. We put it away for a day.

**Experience:** The potato has fallen into the flask.

**Explanation:** The karyotheca is semipermeable, so as it does not let certain substances through, but WATER flows freely through it, always in that direction where the solution is more straight. (This time towards the salt solution)

**Task:** In view of the above mentioned, decide what happens if we put erythrocyte into

- distilled water:

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- very straight salt solution:

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**2. a)** During long and freezing winters lakes freeze in. How do you explain that aquatic animals overwinter under the ice?

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**b)** Why isn't it good for aquatic animals, if warmer water is let in, for example from a plant, to their natural water.

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**3.** Plants convert inorganic compounds – water and carbon dioxide – to organic compounds such as glucose, through photosynthesis. During the process they emit oxygen into the environment. Write down the reaction equation of the photosynthesis.

**4.** The capacity of the human blood = 5 dm<sup>3</sup>. A little bit more than the half of it (count with 50%) is blood plasma. 90% of it is water. Count how much the capacity of water is in 150 people's blood.

**5.** Decide whether these statements about water are true or false.

- a) Water is an excellent dissolvent of oil.
- b) Biochemical reactions in a cell happen in wet condition.
- c) Approximately 30% of the human body is water.
- d) The emergence of a kidney stone can be avoided by drinking a lot of water.
- e) When drinking water we can replace tap water with distilled water in full.