

Biology, Origin of Life (Iva Kubištová)

Time

two separate lessons, part as homework

Topic

Origin of Life is biological but also philosophical and little bit social science theme. This topic is good for improving social and problem solving competences.

Lesson goals

The main goal of lesson is to get close to finding an answer for question "How did life originate?" Students will learn inductive and deductive methods of thinking, critical thinking, tolerance and rules of correct discussion, empathising when they will listen to another people.

Whole task first

"How did life originate?" is main question.

The first step for all students is: "Which another question we can ask about origin of life?" We can enrol this questions on the board. (5 minutes)

The second step is: Each student writes briefly, his/her idea or hypothesis about origin of life (15 - 20 minutes).

The third step is evaluation of all hypotheses and choosing similar hypotheses. We can enrol this hypothesis on the board again. (5 - 10 minutes)

Students will be divided into groups according to similar views. They will be discuss about their views into groups and then peculiarly between groups of each other. (10 minutes)

The fourth step is homework. Each student must look for arguments for and against his theory. He/She should talk with their parents and grandparents (or other people) about their opinion of it. Each student should look for information about the origin of life on the Internet and in other sources. Information for and against will be processed in the table.

The fifth step is the final discussion in groups in the next lesson. Students compare the results of their homework. Each group explain and presents his hypothesis. The teacher summarizes all expressed hypotheses and then teacher will evaluate the work of all groups.

Conclusion

Students formulate the current scientific view of the origin of life and its experimental evidence. They find out how it is different from their opinion or findings.

Notes

This lesson requires an experienced teacher who will appropriately guide, observe, and evaluate the work. Inspiration for teachers is at link:

<https://www.thedailystar.net/science/7-theories-the-origin-life-77163>

or

<https://www.allaboutscience.org/theories-on-the-origin-of-life-faq.htm>