

Professional Reflection-Oriented Focus on Inquiry-based Learning and Education through Science

## PROFILES IBSE Teaching/Learning Materials – Overview

Compiled by the PROFILES Working Group of the Masaryk University, Czech Republic



## Safety of human body: swimming and diving



## A Module for IBSE

Instruction: **Science** (especially **Physics** and **Biology**)

Grades: 5<sup>th</sup> to 9<sup>th</sup>

### Abstract

*The main objective is the safety of the human body investigated by students with use of simple experiments. The safety of the human body in everyday living is the significant content for effective teaching-learning because of practical use and interest. This content can be implemented in family education as the transfer of information about the safety risks from school into families by means of students. This content develops better perceptions of science for students and society. Students are acquainted with human body parameters which can be expressed with the aid of quantities, units and laws. Also external conditions are very important for preservation of vital functions of the human organism including health. This module can develop students' knowledge, understanding and skills to understand science law; measuring unites; applying knowledge in every day practice, interdisciplinary (science) integration of knowledge from separate subjects (Physics + Biology). The maim advantage of this module is his very high level of motivation.*

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**Subject:** Science, Physics, Biology

**Grade level:** 5<sup>th</sup> to 9<sup>th</sup> grade

**Curriculum content:** Archimedes law, hydrostatic pressure, swimming of bodies, breathing, hearing, injury prevention.

**Kind of activity:** Inquiring, experimenting, creating of hypotheses, development of experimental apparatus, group activities etc.

**Anticipated time:** 3 lessons (per 45 minutes)

**Overall Objectives/Competencies:** Understanding of Archimedes law, solving problems with swimming body in liquids, understanding of the function of breathing, understanding of the essence of human hearing, understanding of risks of human body in swimming and diving.

Sections included		
1.	<a href="#">Student activities</a>	Describes the scenario in more detail and the tasks the students should perform
2.	<a href="#">Teacher guide</a>	Suggests a teaching approach

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