



# Learning Scoop

Inquiry-based learning

# What is inquiry-based learning?

- Inquiry-based learning is an activating learner-centered process based on students' own work and research.
- The aim of the method is to be able to understand and explain a phenomenon or a problem.
- At its best, learning is a research process that creates both new understanding and knowledge.
- Seeking, structuring and sharing new information together as a social group is essential.



# The eight steps of the inquiry-based learning method

## 1. Creation of the context:

The teacher creates a context and environment in which the students work.

The teacher introduces the theme and elaborates the task.



## 2. Setting a problem, theme or research issues:

The teacher either gives a problem, a theme or a research question to the students, or asks them to come up with one.

The questions “Why?” and “How?” are of particular importance, as well as the students’ own questions (what are they pondering upon, what are their thoughts on the theme etc.).



### 3. Mapping of student's views:

The teacher finds out what the students already know about the subject and what kind of opinions, explanations or theories they have.



#### 4. Critical evaluation of the students' prior knowledge:

The teacher helps the students evaluate their knowledge critically – what do we know; what do we not know; are there gaps or contradictions in our knowledge; what do we need to find out etc.

The teacher should think about how to achieve this concretely in advance and how critical analysis leads to further learning.



## 5. Acquisition of new knowledge:

The teacher guides the students on where and how to find essential information from various sources and platforms.

The sources could be written materials, the internet, experts of the subject, visits to different places and so on; and the methods reading, observing, experimenting etc.



## 6. Setting new questions:

New information or new problems can be identified after or during the deepening of knowledge.

## 7. Development of a functioning theory:

Together, the students develop a new advanced working model according to their conclusions drawn on their new knowledge (the teacher should aid the students to make the conclusions).

The students' process is evaluated: how did they combine their preconceptions with the new knowledge they just acquired? What did they learn?



## 8. Publication of the results:

The students can process the new information by preparing a presentation, a poster or a play, or by writing a report or by having a discussion.



**Shared expertise** is a part of all the steps. The students work together and share their perceptions and knowledge throughout the process.



# Examples of inquiry-based learning

- Science: Ecosystem, Climate change, The state of the Baltic Sea, Water as a substance, My surroundings, From seed to plant, How to protect from cold, What happens to different trees in the fall, The forest animals, Motion and strength
- History: Middle East, Second World War
- Geography: The Nordic countries
- Mathematics: Characteristics of the figures, Trigonometry, Area





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