

PORPERTIES OF SOUND -

Nataša Jelen OŠ Tončke Čeč Trbovlje, Slovenia natasa.jelen@os-toncke-cec.si





Pupils explored the properties of sound through experiments.

Using worksheets I tested how they articulate observations and findings in writing.

MY QUESTIONS

- How do pupils use new facts they acquire in experiments?
- How exact are their observations?
- To what extent do they sketch correctly?
- How do they transfer knowledge "from head to paper"?
- To what extent are they accustomed to work independently and record measured data in the seventh grade?

MY PRACTICIONER INQUIRY PLAN

Pupils performed experiments and recorded the findings on worksheets. They worked in pairs, moving from one exercise to another. They had to perform each exercise practically, sketch the course of the exercise and record the findings.

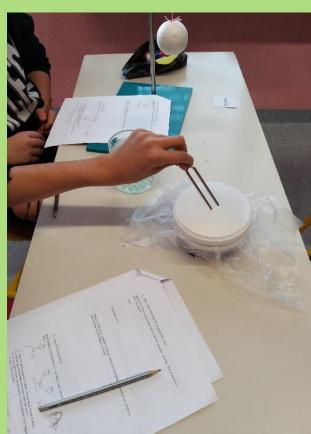
I walked among the groups, I sometimes asked a question or answered it if I was asked by pupils. In addition, I chose an average couple of pupils to whom I intentionally pointed out the things they need to pay attention to.

ABOUT THE IBL ACTIVITY

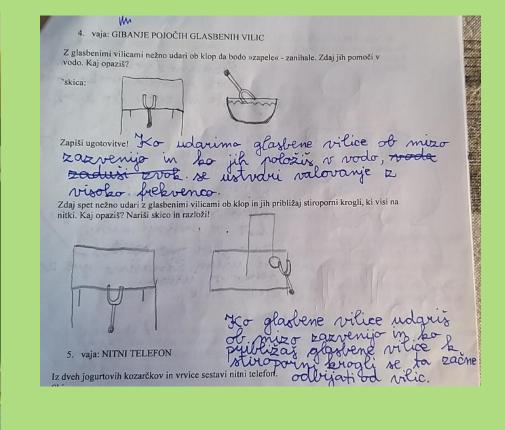
In seventh grade we had a science day called Sound. Pupils already knew a few basic facts about sound. Through experiments, they have expanded, enriched their knowledge and empirically learned. They "transformed" all their findings into words and sketches.

Pupils had five school hours available, they worked in pairs and each of them completed their own worksheet. They investigated if the sound could blow off the candle, if it could swing the ball, what does impact the pitch of the sound, and how the sound propagates.



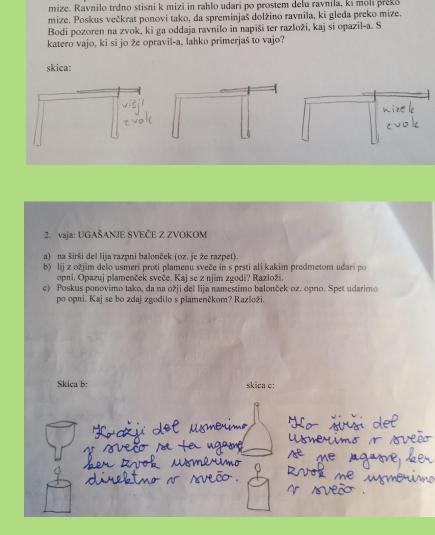


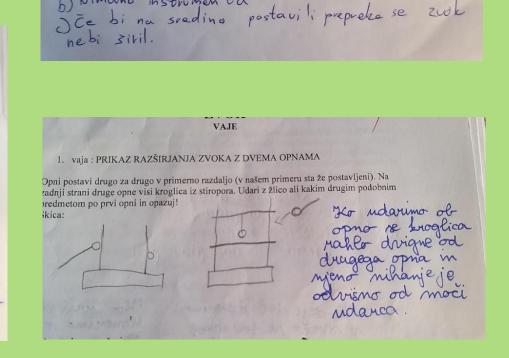












COLLECTED DATA

They liked to work and they were quite enthusiastic, they had a lot of fun (for example, musical forks + water) at some experiments.

However, when the findings had to be written on a paper and sketches drawn, problems arose. Almost all of the pupils satisfactory drew the first phase of the experiment, that is, the expriment itself. The last phase, drawing conclusions from experiments and the result of all the experiments was drawn by only one pair of cognitively more able students and the pair of whom I intentionally (but scarcely) pointed out hints for focusing their attention. Less than half of the pupils did not find correct words when describing observed phenomena, and almost all of them were superficial and inaccurate in observing and plotting them.

If we look at all the activities, then we have to find that the students are able to think and draw conclusions from the observations. This represents a considerable challenge for them, but in general they are able to tackle it successfully. The big problem, however, are conclusions form all findings that have been made, formulated, recorded and sketched. I think these process is just as important as other cognitive processes. However, I have found that through proper teaching (teacher reminder), pupils can be "taught" to observe correctly and comprehensively record and sketch experiments..

