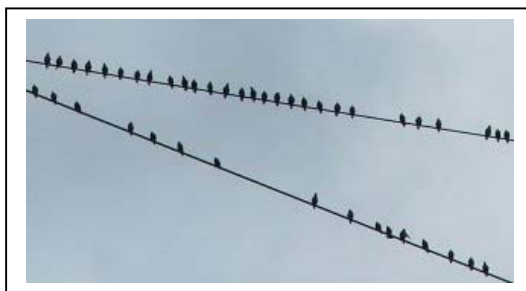


Teaching –learning module compiled by the PARSEL consortium
as part of an EC FP6 funded project (SAS6-CT-2006-042922-PARSEL) on
Popularity and Relevance of Science Education for scientific Literacy



The high-voltage Bird

A grade 7 - 9 science (physics) module on
Electric Current



Abstract:

The students discuss a caricature with two birds, one of them sitting on a wire and the other one over an electric bulb which is included in an electric current. This open task leads to fruitful discussion in which the knowledge of the students is reactivated and/or newly arranged. Examples of three different discussions are given.

In an assessment the students should use their knowledge to answer the question, why birds are not harmed sitting on a high-voltage power line - only if they are big as e.g. storks.

Sections included		
1.	Student activities (for the students)	Describes the scenario in more detail and the tasks the students should perform
2.	Teaching guide	Suggests a teaching approach
3.	Assessment	Gives suggested formative assessment strategies

Developer: Stefan Burzin and a Teacher Group of the Sinus-Programme based on an idea of Lewis C. Epstein, Thinking Physics, Insight Pr, 2nd ed. 1984
Institution: IPN - Leibniz-Institute for Science Education, University of Kiel
Country: Germany

Overall Objectives/Competencies: The students are expected to:

- * understand the problem;
- * discuss by using their knowledge of electric current;
- * cooperate by participating as a member of a group in a discussion on the outcomes;
- * transfer their knowledge to another problem

Curriculum content: Electric current.

Kind of activity: Interpreting a caricature, Group discussion, decision between different suggestions.

Anticipated time: 1 lesson

Prior Learning: basic knowledge on electric current

This unique teaching-learning material is intended to guide the teacher towards promoting students' scientific literacy by recognising learning in 4 domains – intellectual development, the process and nature of science, personal development and social development.

Its uniqueness extends to an approach to science lessons which is designed to be popular and relevant. For this the approach is intentionally from society to science and attempts to specifically meet student learning needs.

This uniqueness is specifically exhibited by:

1. a society related and issue-based title (supported in the student guide by a scenario);
2. student-centred emphasis on scientific problem solving, encompassing the learning of a range of educational and scientific goals;
3. including socio-scientific decision making to relate the science acquired to societal needs for responsible citizenship.

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