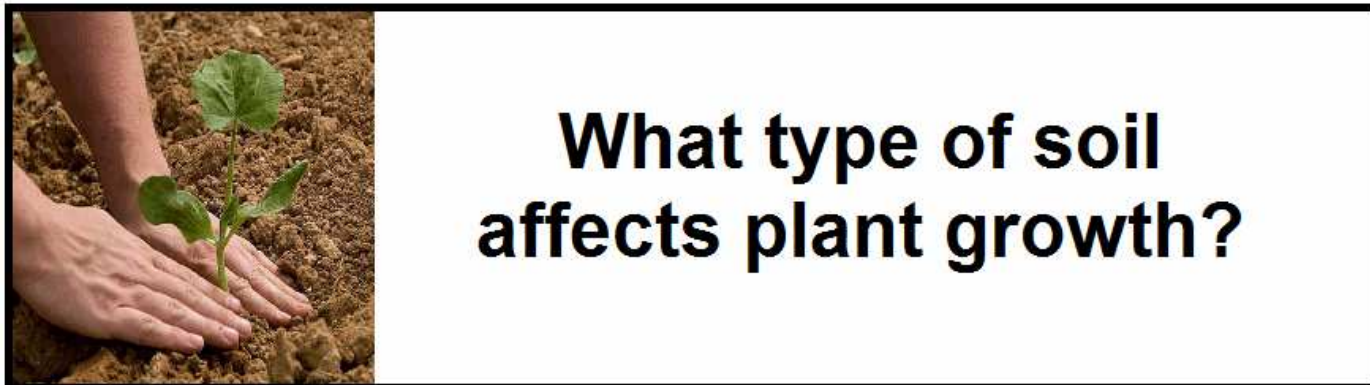


Professional Reflection-Oriented Focus on Inquiry-based Learning and Education through Science

PROFILES IBSE Teaching/Learning Materials - Overview

compiled by the PROFILES Working Group of the Maria Curie-Skłodowska University, Lublin - Poland



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Abstract

Realization of the module “What type of soil affects plant growth” will allow pupils to get familiar with structure and physico-chemical properties of soil and processes connected with its cultivation. It discusses importance of soil, types of soil and effects of some factors influencing quality and quantity of cultivated plants. The preliminary knowledge of pupils about solutions, acids and bases is required. The presented problems are discussed from the point of view of soil users such as pedologists, farmers, owners of allotments etc. Discussion of the contents is accompanied by pupils numerous practical activities including experiments. The actions performed by pupils according to the stages of learning through problem solving allow them to get to know soil habitat and to understand the problem under discussion. In the realization of the module, the attention was paid to problems connected with soil quality and human health.

Subject: Biology Grade level: 1st to 2nd grade of junior secondary school.

Curriculum content: living requirements of plants, application of biology and chemistry in agriculture.

Kind of activity: drawing up of research problems, making assumptions, reasoning, planning and conducting experiments, nature observations, gathering and making notes of the data (writing a report), drawing conclusions, reflective evaluation of undertaken activities, team work, etc.

Anticipated time: 5 lessons of 45 minutes

Overall Objectives/Competencies: solving of theoretical and practical problems connected with everyday life and making decisions, developing critical thinking and creativity, shaping research attitude, improving communication and team collaboration.

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Attached files		
1.	Student activities	Describes the scenario in more detail and the tasks the students should carry out
2.	Teaching guide	Suggests a teaching approach

Acknowledgement:

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For further information see: www.parsel.eu.