

<p>Lesson (title) Soil - structure and components</p>	<p>Subject: Man and nature Topic: Pure substances and mixtures</p>
<p>Language competence level A1X A2 <input type="checkbox"/> B1 B2 <input type="checkbox"/> C1 <input type="checkbox"/></p>	<p>Prerequisites / requirements (e.g. revision or preparation as regards the foreign language or the content of the subject, using the mother tongue in some parts of the lesson) Consolidating the vocabulary and grammar in German as regards the educational content of the second part (chemistry)· revising/applying knowledge on pure substances and mixtures· partial use of the Bulgarian language in experiments.</p>
<p>Class/grade: 5 Number of students in class : 14</p>	<p>Age of students : 11 Duration of lesson(s): 40 min</p>
<p>Lesson content: Soil is a complex heterogeneous mixture consisting of solids and liquid components and living organisms.</p>	
<p>Teaching aims/objectives Content: Ss will find answers to the following questions: Is soil an homogeneous or an heterogeneous mixture? Which components does it consist of? Which elements are part of the microflora and the fauna? How do individuals take care of the soil and in what way do they harm it? How are the different soil components produced and how important are they to individuals? Communication: Ss will be able to give examples of soil components and classify the components of the basic soil types. They will be able to name components constituting part of the microflora or the fauna, as well as of different ways in which these organisms assist in preserving soil. Cognition: Ss will be able to remember previously acquired knowledge, identify the different soil components and define to which basic group each one of them belongs. They must also be able to think of different ways of taking care of the soil and learn to minimize the harmful effect of human activity in nature. Culture/ community/ citizenship: Students will realize the importance of soil in nature and in agriculture. They must understand that it is extremely important for plants, animals and individuals. It is important for them to know that soil preserves all plants and that these, in turn, take care of animals and individuals, by providing them with nutrition, as well as in many other ways.</p>	

FL/NS Lesson Planning/Template based on 4 Cs (see next page)
(content, communication, cognition, culture)

phase

time **Content**
C1 **Objective/Competence**
 („can-do“ statements)

C1:

C2:

C3:

C4: **Student activity** **Social form/ setting**

C2, C3, C4 **Material, media, mobile lab**

Language: C2

subject specific terminology **Language: C2 communication & interaction** **Teacher activity**

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trigger

Notes, comments on processes & outcomes = including

Revising students' knowledge on pure substances and mixtures and applying it to describe soil, which is a motley mixture of elements and microelements.

Ss will be aware that soil is an heterogeneous mixture, which according to its geographic area, consists of different components. Knowing that soil components belong to different groups.

Answering questions asked by the teacher, remembering the difference between homogenous and motley mixtures· giving ideas about soil structure and the difference between fauna and microfauna. The whole class

... .. Data sheet Die Mikrofauna

FL/STEM and the domains of the 4Cs

C1	Content / Learning outcomes	<p>“know” (content)</p> <p>“be able to” (content, communication)</p> <p>“be aware” (content, cognition)</p>
C2	Communication: Language learning & Interaction	<p>Vocabulary (revisited/new)</p> <p>Vocabulary (new): subject matter specific (CALP)</p> <p>Vocabulary (new): general (BICS)</p> <p>Structures (focus on grammar)</p> <p>Language functions (information, argumentation, questioning, reasoning)</p>
C3	Cognition / cognitive processing: LOTS & HOTS	<p>Remembering / Identifying</p> <p>Comparing</p> <p>Classifying</p> <p>Predicting</p> <p>Reasoning</p> <p>Synthesizing / creating</p>
C4	Culture / Community	<p>Awareness (of scientific topic as relevant for the culture / community)</p> <p>Involvement (project continuation outside of classroom)</p> <p>Communication (proliferation of scientific results in community)</p>

****Note:** *this column refers to the lessons implemented during the school year 2015-2016. The comments concern exclusively the academic hours the lesson was made and because of the uniqueness and diversity of each class, it should not be expected to be exactly the same during another lesson.*