SCHOOLS GO GREEN

Co-funded by the Erasmus+ Programme of the European Union

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Project number: 2020-1-DE03-KA201-077258

Ecosystems & Biodiversity Conservation

Marca – Associação de Desenvolvimento Local

March, 2022, Montemor-o-Novo, Portugal

LESSON PLANS FOR TEACHERS

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Project Information

PROJECT: Schools Go Green

PROJECT TITLE: DEVELOPING A WHOLE-SCHOOL APPROACH TO PROMOTE SOCIAL CHANGE AND SUSTAINABLE DEVELOPMENT AS A RESPONSE TO ENVIRONMENTAL CHALLENGES

ACRONYM: SCHOOLS GO GREEN

PROJECT WEBSITE: https://schoolsgogreen.eu/

PROJECT NO.: 2020-1-DE03-KA201-077258

PROJECT COORDINATOR: LEIBNIZ UNIVERSITAT HANNOVER, GERMANY

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Module 6: Ecosystems & Biodiversity Conservation

Topic 1 Title: Biodiversity and ecosystems	
Lesson Plan 1 B – Biodiversity and Ecosystems	
Duration: 2 hour	
Short Description of the Lesson	This lesson plan was designed to address the key concepts in pages 6 – 16 of the Module 6 Teachers Handbook.
Learning Goals	1) Recognize the different forms of life on Earth and its diversity a. Recognize the existence of diversity among living beings of different groups. b. Categorize living beings according to observable similarities and differences. 2) Understand how natural environment components interact (biotic and abiotic factors) - ecosystem and ecosystems services. a. Recognize the importance of the Sun for the existence of life on Earth. b. Characterize some of the existing biodiversity at a local, regional and national level, presenting examples of relationships between flora and fauna in different habitats. c. Understand that living beings depend on each other, namely through food relationships, and the physical environment.
Green Competences Linked	
Target Group	10-12 years old
Educational Approach	
Link to School Curricula (if applicable)	
Facility/ Equipment	• Classroom • Internet access • Projector • Computer • Board

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Tools/ Materials	
Main Tasks	1. Origin on Life video - Start the lesson with a video**– 5 min.** 2. Discussion and questions for the video; enouce key concepts on the origin of life, write on the board **– 20 min.** 3. Go through Slides 7-11 (Student Presentation module 6) **– 5 min.** 4. See activities in annexxes**– 25 min.** 5. What is Biodiversity **video**– **5 min.** 6. Discussion and questions for the video; enouce biodiversity levels (invideo 35s -41 s), write on the board **– 15 min.** 7. Go through Slides 12-20 (Student Presentation module 6) **– 10 min.** 8. See activities in annexxes**– 30 min.**
Extracurricular Activities	Several Worksheets addressing addressed key concepts.

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Module 6: Ecosystems & Biodiversity Conservation

Topic 1 Title: Natural Environment & Global Economy	
Lesson Plan 2 B – What are the local impacts in natural environment of the global economy	
Duration: 2 hour	
Short Description of the Lesson	This lesson plan was designed to address the key concepts in pages 16 – 22 of the Module 6 Teachers Handbook.
Learning Goals	1) Understand the dependence and impacts of global economy on natural environment 2) Locate, on the planisphere or on the globe, the main physical forms of the Earth's surface (continents, oceans, mountain ranges, rivers, forests, deserts). 3) Describe different types of land use in your region (agricultural, forestry, industrial or tourist areas), comparing with those in other regions. 4) List threats to the biodiversity of living beings such as: pollution, invasive species, over-exploitation, fragmentation and destruction of habitats 5) Identify endangered or even extinct plants and animals, investigating the reasons that led to this situation. 6) Comprehend the importance and how to contribute towards biodiversity conservation a. Need to develop responsible attitudes towards Nature. b. Formulate critical opinions about human actions that affect biodiversity and the importance of its preservation. c. Valuing protected areas and their role in protecting wildlife.
Green Competences Linked	
Target Group	Primary school students aged 6-9 years old
Educational Approach	Use Google Maps or Google Earth (free software) to make the lesson more appealing, and also promoting student cartographic capacities
Link to School Curricula (if applicable)	

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Facility/ Equipment	• Classroom • Internet access • Projector • Computer • Board
Tools/ Materials	
Main Tasks	**1.** Open Google Earth or Google Maps and locate the area of the school **– 5 min.** **2.** Explore together with the students the region (city coucncil area at least or even a bigger region where the city council belongs) where the shools is located, promote a discussion between the students about the regional landuse, using the observation registration form (in annexx) **– 15 min.** **3.** Go through Slides 21-29 (Student Presentation module 6) **– 15 min.** **4.** Divide the class into groups of 4-5 students. **5.** Each group with your supervision should list important natural heritage (species, habitats, places, etc) of the region, if necessary make some online searchs to support students ideas, using the natural heritage list form (in annexx) **– 20 min.** **6.** Each group should present their lists, the teacher will compile group's lists into a single one **– 10 min**. **7.** Each group with your supervision should list natural heritage threats in the region, if necessary make some online searchs to support students ideas, using the threats list form (in annexx) **– 20 min.** **8.** Each group should present their lists, the teacher will compile group's lists into a single one **– 10 min**. **9.** Discuss with the group how these threats could be reduced and – **25 min**
Extracurricular Activities	Several Forms to support teacher and students work.

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Module 6: Ecosystems & Biodiversity Conservation	
Topic 1 Title: Natural Environment & Global Economy	
Lesson Plan 3 A – What are the local impacts in natural environment of the global economy	
Duration: 2,5 hours	
Short Description of the Lesson	This lesson plan was designed to address the key concepts in pages 16 – 22 of the Module 6 Teachers Handbook.
Learning Goals	1) Understand the dependence and impacts of global economy on natural environment 2) Locate, on the planisphere or on the globe, the main physical forms of the Earth's surface (continents, oceans, mountain ranges, rivers, forests, deserts). 3) Describe different types of land use in your region (agricultural, forestry, industrial or tourist areas), comparing with those in other regions. 4) List threats to the biodiversity of living beings such as: pollution, invasive species, over-exploitation, fragmentation and destruction of habitats 5) Identify endangered or even extinct plants and animals, investigating the reasons that led to this situation. 6) Comprehend the importance and how to contribute towards biodiversity conservation a. Need to develop responsible attitudes towards Nature. b. Formulate critical opinions about human actions that affect biodiversity and the importance of its preservation. c. Valuing protected areas and their role in protecting wildlife.
Green Competences Linked	
Target Group	Primary school students aged 6-9 years old
Educational Approach	
Link to School Curricula (if applicable)	

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Facility/ Equipment	• Classroom • Internet access • Projector • Computer • Board
Tools/ Materials	
Main Tasks	**1.** Open Natura2000 Viewer and explore together with the students your country area and existing Natura 2000 sites – **10 min.** **2.** Go through Slides 30-34 (Student Presentation module 6) **– 5 min.** **3.** Choose together with the students one Natura 2000 site, click on it and then click on Standard Data Form and copy the site code (point 1.2). **4.** Open EUNIS website and paste the site code on the 3rd search engine ”Sites”. Start to characterize the site on the Site Data Form Sheet (in annexx). The website is only in english so please translate with the students (you can use Google ranslate to facilitate the translation) **– 45 min.** **5.** Divide the class into groups of 4-5 students. **6.** Each group with your supervision should choose one of the species listed in that site, ensuring that the class covers more than one specie. Click on its name to open Specie Data. Start to characterize the Specie on the Specie Data Form Sheet (in annexx). The website is only in english so please translate with the students (you can use Google ranslate to facilitate the translation) **– 35 min.** **7.** Copy the scientific specie name (in italicum), open IUCN Red List and past the specie name on the website search engine on the top, click on the result to access all specie information. Completing the necessary information on Specie Data Form Sheet, which you have started to fill in previous task (in annexx) **– 15 min.** **8.** Each group should present to the class how these each one of us can contribute to minimize the threats to these natural values – **30 min**
Extracurricular Activities	Several Forms to support teacher and students work.

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