

Biodiversity, protected areas and national parks



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Activity No. 1

Part of the lesson: **EVOCATION**

The aim of the activity: Introduce the concepts of biodiversity, protected areas and national parks.

Step 1

Brief description of the activity:

Brainstorming on the concept of National Parks, Protected Areas, Geo Parks.

Show images in Annex 1 of protected areas inside human settlements. The students get pencils and papers and write or draw what they know or something that they can imagine about the above words getting inspired by the pictures. Help them with the following questions: What do the words mean? Why are there these areas? What is included in these areas? etc. It can be a text, phrases, and words, experiences from a visit in these areas, etc., described by single words or short sentences. If they have questions to the pictures let them ask.

Instruction (what you need to tell the students):

Look at the pictures in ANNEX 1.

Write or draw what you know or something that you can imagine about the words National Parks, Protected Areas, GeoParks. You can get inspired by the pictures.

Try to consider:

What do these words mean?

Why are there these areas?

What is included in these areas?

Step 2

Brief description of the activity:

Read in the classroom what was written down (whoever wishes to do so). Teacher discusses with students.

The teacher writes the most relevant facts on the blackboard/interactive whiteboard.

Instruction (what you need to tell the students):

Read in the classroom what you wrote about the topic.

Tools for the activity (everything you need to take to the classroom): paper and pen for each student, images from ANNEX 1, blackboard/interactive whiteboard

Estimated time (max. 40 min.): 10 minutes

Notes: In case you can use computer, just simply present with overhead projector some images/ videos of National parks in your surroundings.

Activity No. 2

The aim of the activity: Understand the importance of biodiversity and the role of protected areas and national parks in order to preserve it.

Step 1

Brief description of the activity:

Teacher helps the students understand what threats nature and the role played by humans.

Students work in groups of 3-4. The teacher asks the students to write in a paper the list of human activities that can cause the extinction of a species in general or in the local habitat (e.g. destroying a forest, extensive agriculture, building a city, uncontrolled hunting, and pollution).

Annex 2 can help.

After 5 min. teacher asks students to present what they wrote and makes notes on the blackboard.

Instruction (what you need to tell the students):

Work in groups. Write in a paper words or short sentences about type of human activities that can cause the extinction of a species in general or in the local habitat.

If you don't have any ideas, read the text from Annex 2 and continue writing.

Step 2

Brief description of the activity:

Understand the importance of maintaining biodiversity through the game of food chain or food Network*. The organisms that live in an ecosystem are linked to each other by food relationships between producers, consumers and decomposers. The richness of biodiversity allows a more varied food supplies and consequently provides a higher balance of the ecosystem and a resilience to external impacts, such as the disappearance of a species. Use the game to explore these links and possible consequences of the disappearance of a species.

You can use the online game (find the link below in NOTES) and play it with the students. For each game ask them: which species can disappear and why (hunting, pollution . . .) and which are the consequences for the food chain.

If you have no internet connection in classroom, the teacher can prepare his own game (inspired by online game). From a typical habitat near the school he/she prepares/collects drawings, images of the principal animal species and plants living there (flowers, plants, trees, shrub, mouse, snake, mushroom, bee, insects, fox, wild boar, eagle. . .). Each of them will represent one card of a game.

Prepare examples of several food chains – e.g. 5. Divide the students into 5 groups and let each group work with different food chain.

Then ask the groups to name each food chain and write its name and the name of the species on the blackboard.

In order not to mix the food chains, allocate separate space on the board for each group. (5 different sections on the board).

Then the teacher asks who eats what and draws an arrow from the predator to the prey.

At the end the teacher asks what can happen if a specific event happens (pollution kills the bees, humans build a city and destroy plants, collect all the mushroom etc.) and eliminates some species from the food chain. The students reflect to what happens to the other species in their food chain.

Part of the lesson: APPRECIATION

Activity No. 2

Part of the lesson: **APPRECIATION**

Instruction (what you need to tell the students):

Let's play this game through the internet (see link on the note).

OR

Divide into groups. Each group receives the set of cards with drawings, images of the principal animals and plants living in the area (flowers, plants, trees, shrub, mouse, snake, mushroom, bee, insects, fox, wild boar, eagle . . .).

Now name your food chain and write its name and the name of the species down on a blackboard.

What do you think, who eats who? Draw arrows from predator to prey.

(at the end of activity) What can happen if a specific event occurs in the area (pollution kills the bees, humans build a city and destroy plants, collect all the mushrooms etc.) and eliminates some species from the food chain? What happens to the other species in their food chain?

Tools for the activity (everything you need to take to the classroom): Images or drawings of animals or digital images, blackboard /interactive white board, paper and pencil

Alternatively: computers for each group or each student, internet connection

Estimated time (max. 40 min.): 20 minutes

Notes: *Electronic games on food chain are also available on the internet like: <http://www.sheppardsoftware.com/content/animals/kidscorner/games/foodchaingame.swf>

If you use proposed online game in ENGLISH, you can use the CLIL method in this lesson.

Activity No. 3

Part of the lesson: REFLECTION

The aim of the activity: Reflect on the importance of protected areas in preserving biodiversity.

Step 1

Brief description of the activity:

Propose solutions to preserve biodiversity.

Children work in group. Each group describes a method to preserve species from the already mentioned threats (through sentences or create a slogan on paper or in a computer. . .). Then they read them in the classroom and discuss who can be pro or against these solutions.

Instruction (what you need to tell the students):

What did you learn from the game?

Work in groups. Try to describe the method to preserve species from the already mentioned threats (through sentences or create a slogan on a paper).

(later) Who can be pro or against these solutions and why?

Tools for the activity (everything you need to take to the classroom): Paper, pen

Estimated time (max. 40 min.): 10 minutes

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Annex 2

Protected areas and natural parks are natural areas that have the function of maintaining the environmental balance of a given place and increasing its biodiversity. Protected areas are characterized by the presence of different types of habitat and are inhabited by several species of animals and plants.

They are intended to shelter and reproduction of wildlife and hunting is prohibited there, except for the species that are overpopulated. In this case a selective control, can be practiced by means of capture or hunting, after the environmental authority has verified the ineffectiveness of the other methods.

They are aimed at preserving habitats and biodiversity threatened by human activities (urbanization, hunting and agriculture). The protected natural areas can be partly or entirely opened to the public, thus promoting tourism in a sustainable way.

The protected natural areas may be designated by the public or private institutions such as charities. Depending on the level of protection provided by the laws of each State, the natural protected areas are divided into the categories of the **International Union for Conservation of Nature (IUCN - International Union for the Conservation of Nature)**, a nongovernmental organization that carries out a role of coordination between different organizations in environmental matters.

NOTES