Scenario 8: Green city, city adapted to the climate change - urban heat island mitigation.	
Brief description lesson	Based on the acquired knowledge, students try to create a concept of land development (e.g., a school yard) using simple adaptation tools.
Objectives of the classes	- The objective of the classes is to learn about the causes of increased temperature in cities, as well as ways of lowering it with the use of simple NBS tools.
Detailed objectives:	- The student learns how the development of urban spaces influences the shaping of thermal conditions. - The student knows what the so-called urban heat island is. - The student acquires knowledge about how vegetation reduces the air temperature in cities. - The student learns the basic NBS tools for lowering the temperature in cities.
Supplementing the information in the field of:	- Formation of the urban heat island. What heatwaves are.
Messages: - the student knows and explains	- The student knows and understands how the development of urban spaces influences the shaping of temperature in cities. - The student knows and explains what the urban heat island is. He can explain the impact of this phenomenon on the life of the city's inhabitants. - The student is able to explain the role of plants in shaping the temperature in the city. -The student is able to replace several tools (NBS) used in urban spaces in order to reduce the air temperature or protect given surfaces from their excessive heating.
Competences	- The student is able to observe which components in a given space have a negative impact on the shaping of temperature in highly urbanized spaces. - The student is able to propose a solution on how to arrange a given space in order to reduce the air temperature and isolate the given surfaces against their excessive heating.
Method	- presentation - field work. - work on the mock-up,
Time span	- completion time 90 (two 45' lessons)
Aids	Preparation of a presentation by the teacher on the formation of temperature in cities and the occurrence of urban heat island. Selecting simple solutions from the NBS catalog and presenting them as tools for regulating temperature in cities. Examples of solutions: planting of trees and creepers, green, brown or extensive roofs, unsealing the ground surface, organization of urban orchards, community gardens, flower meadows, etc. - resources on the Citadine website. Pictures of the space for which solutions will be proposed. (the students) Aids: a mock-up, rigid cardboard, boxes, colored felt-tip pens, glue, adhesive tape, crepe paper (the students).
Course of the lesson	The lesson will consist of two parts: The first lesson will be an introductory lesson: a) the teacher prepares a presentation (using the materials posted on the Citadine website) - in the presentation explains what an urban heat island is, which urban spaces are most exposed to their excessive heating, what the role of vegetation in shaping the temperature in cities is, what low-cost

	solutions in the field of (NBS) can be used in cities to lower the temperature in them. Then the teacher goes outdoors with the students (e.g., in front of the school or in the school playground, asks the students to take photos of the space, analyze the existing land development, designate spaces particularly exposed to high heating, designate the space where it will be possible to intervene in the area of implementation of various NBS solutions - pay attention here to non-obvious spaces - such as blind walls or roofs. In the next lesson, students will create a model of a given space from cardboard boxes, and then, using the knowledge from the previous lesson and conclusions from field research, arrange examples of solutions by introducing appropriate plant compositions into the space (work performed in groups of two or three). The results of his work are presented at the end of the lesson.
Completion / Summary	The student knows how dangerous the effects of heat waves and increased temperature in the city are. He/she is able to find solutions (with the use of plant compositions) relevant for a given space in order to lower the air temperature and protect given spaces against their excessive heating.
Aids	Citadine website - NBS solutions, Slides from the lecture: "Counteracting the heating of cities, improving biodiversity in cities by implementing nature-based solutions in the existing structure of cities".