

<b>City Challenge Report Card</b>			
<b>The City Challenge Theme</b>		Challenge 3: Regenerating urban space to connect people in a healthy environment Project name: Pratum. Place for all.	
<b>School/Summer School</b>		ZŠ a MŠ Hradec Králové, Štefcova 1092	Teacher(s) / Disciplines  Mgr. Lenka Bičanová Bi/Geo Mgr. Sylva Balcarová Bi/Chem Radka Paříková teacher assistant Mgr. Barbora Špitálníková Eng Mgr. Tereza Kozderková Eng/Fr Mgr. Michaela Konrádová Bi/Russian Mgr. Jiří Ducháček History/Sports Mgr. Pavlína Lohnická Bi/Math Mgr. Markéta Uhlířová Eng Mgr. Lenka Jeriová Inf/Sports
<b>The planning phase</b>	<b>Problem</b> (The What-question)	Finding solutions close to nature - protection of biodiversity and microclimate of the city.	
	<b>Relevance</b> (The Why question)	The aim of our project was to explore the importance of urban greenery for influencing the microclimate of the city. Urban greenery has a crucial role in preventing the formation of urban heat islands. We investigated the effect of greenery on creating a suitable microclimate and conditions supporting biodiversity. An important ability of greenery is to stabilize a more pleasant climate inside the city when exposed to high temperatures, but also to maintain a certain humidity of the air or soil.	
	<b>Expectation / Hypothesis</b>	Greenery in cities has a positive effect on the city's microclimate - it prevents the formation of heat islands, maintains higher soil moisture.	
	<b>Methods</b> (The How-question <sup>1</sup> )	We performed pedological measurements in situ according to the GLOBE methodology. Using soil thermometer, we measured the soil temperature based on the butterfly meadow, the soil temperature close to the tartan field and the temperature of the tartan field. We also determined the water content of the butterfly meadow soil and the soil by the playground. At the same time, we used data on temperature and NDMI remote sensing index for comparison.  Supporting biodiversity by extension of the flower meadow in the school garden. Planting spring bulbs, establishing a bed of honey plants in the school garden Raising bumblebees in the school garden. Installation of bird feeders and waterers and birdhouses in the school garden Regular observations and evaluation of insect and bird species.	
	<b>Participants<sup>2</sup></b> (The Who-question)	Učitelé a žáci ZŠ Hradec Králové, Štefcova 109 Mgr. Josef Laštovička Technické služby Hradec Králové	
<b>Theme</b>	<b>Activity 1</b> (e.g. literature,	Studying of literature, internet sources and collection of information - pedological measurements (temperature, soil water content)	

<sup>1</sup> Please provide the keywords regarding both, the teaching approach and the research approach

<sup>2</sup> E.g. the science team members

	book review)	
	Activity 2 (e.g. gather data / information)	Remote sensing course led by Mgr. Josefa Laštovičky
	Activity 3	Measurement of soil temperature and water content in soil in situ. Collection of remote sensing data regarding temperature and NDMI index. Extension of the flower meadow in the school garden, planting spring bulbs. Installation of bird feeders and waterers and birdhouses.
	Activity 4	Statistical evaluation of soil temperature and soil water content data - tables, graphs. Ornithological and entomological observations.
	Activity 5	Presentation of our project to public and to schools (described below)
	City Challenge solution	Implemented changes leading to a positive effect on the city's microclimate in the school garden and in the immediate vicinity of the school - the establishment of a butterfly meadow, mosaic cutting. Evaluation of the influence of greenery on the microclimate of the city.
<b>The documentation and reporting phase</b>	Group or class (e.g. reports, posters etc)	Posters Banner Information at notice boards in the schools.
	School (e.g. school web page, school newspaper)	School website <a href="http://www.stefcova.cz">www.stefcova.cz</a> School magazine Štefcováček
	Public (e.g. meeting, news media)	Open event. - Garden party - meeting with the public Presentation of the project at GLOBE Games 2022 in Zbiroh – the biggest students conference in the Czech Republic.. Facebook @projectpratum

**Room for additional explanations (some feedbacks on main problemes found and related solutions, or other observations are very appreciated)**

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<sup>3</sup> Please provide support if possible through pictures, sketches, charts, student reflection or such