



Narodowe Centrum
Badań i Rozwoju



UNIwersytet
Warszawski

Scenario 5: Wind, hurricanes, storms - unstoppable elements.

Brief description of the lesson	Based on the course of historical natural disasters, such as strong gusts of wind, storms, tornadoes, hurricanes, students will learn about the consequences of these phenomena in the spatial, social, economic and natural aspect.
Objectives of the classes	- The objective of the classes will be to make students aware of the effects of the increasingly dynamic phenomena of the nature of whirlwinds, hurricanes and cyclones, as well as storms.
Detailed objectives:	- The student organizes the knowledge of the formation of phenomena of the nature: hurricanes, cyclones, whirlwinds.
Supplementing the information in the field of:	- Discussion of the causes of such phenomena as wind, hurricane or tornadoes.
Messages: - the student knows and explains	- The student knows and explains the consequences of the occurrence of such phenomena as hurricanes, cyclones, tornadoes, storms or strong winds in the following aspects: economical, spatial, social and natural.
Competences	- The student learns about the effects and multi-faceted nature of the processes related to the intensification of phenomena related to strong winds. - The student learns how to mitigate this type of phenomena in urban spaces.
Method	- Discussion. At home, students will read online resources in this scenario or on the Citadine website about disasters related to strong winds, storms, cyclones, whirlwinds, etc. in terms of the effects of these disasters (spatial, social, economic and natural), as well as the methods of minimizing these phenomena. A task to be performed at home; students present the results of their work in a geography lesson.
Time span	- completion time 90 -120 minutes (own work at home) - discussion time 30 minutes (during the lesson) - summarization time 15 minutes (by the teacher in the lesson)
Aids	- 4 large sheets of wrapping paper, stationery (thick colored markers)
Course of the lesson	At the very beginning of the lesson, the teacher reminds students of the basic information on the formation of such phenomena as hurricanes, cyclones, severe storms and tornadoes. Then he/she goes on to discuss what the consequences of such events may be. It is worth mobilizing students here so that they are able to be divide into several aspects: a) spatial aspect, b) social aspect, c) natural aspect, d) economic aspect. Individual speakers write down their conclusions on sheets of paper. Then the students ponder how we can counteract these negative effects of the consequences of the above-mentioned phenomena (analysis of the projects included in the scenario, interview with the director of the Ryteł Forest District after the violent storm of 2017 and how the perception of new plantings / forest management has changed in State Forests).
Completion/ Summary	At the end, students draw conclusions from the discussion conducted during the lesson in the form of writing a short press release / essay in a notebook.
Aids	What happened in Ryteł? Aids available on the Citadine website.

	<p>The effects of Hurricane Katrina. With the use of aids, e.g., https://www.history.com/topics/natural-disasters-and-environment/hurricane-katrina, or https://edition.cnn.com/2013/08/23/us/hurricane-katrina-statistics-fast-facts/index.html</p> <p>How to prepare cities for events such as Hurricane Katrina. https://www.asla.org/2017studentawards/332559.html, https://www.asla.org/awards/2006/studentawards/413.html, https://www.asla.org/awards/2008/studentawards/128.html</p>
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