



YALE NATIONAL INITIATIVE

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Curriculum Units by Fellows of the National Initiative

2022 Volume V: Floods and Fires, How a Changing Climate Is Impacting the U.S.

Graphing the Urban Health Impacts of Rising Temperature, Air Quality and Increased Pollen

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by Shamira Underwood

The historical practices of redlining in urban areas, like Pittsburgh, PA, have made it more likely that African American students and other vulnerable populations will live in undesirable urban areas. This practice has been linked to poor health outcomes for respiratory illness and asthma. In this unit, students will learn how climate change impacts are contributing to the rise in allergies and asthma severity in some urban areas. Students will learn how to track, analyze, and represent data related to respiratory health, including local daily temperature, pollen count, and the Air Quality Index (AQI) using tally charts, tables, pictographs, line plots, or bar graphs. The unit will cover the 3rd Grade Pennsylvania Standard CC.2.4.3.A.4 which states “Pennsylvania’s public schools shall teach, challenge, and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs.”

(Developed for Mathematics, grade 3; recommended for Mathematics, grade 3)

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