



We are the Environment

Exploring Environmental Justice Close to Home



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Environmental Justice & Its History

To put it simply, environmental justice is a "social movement which addresses the unfair exposure of poor and marginalized communities to harms from hazardous waste, resource extraction, and other land uses."¹

The history of redlining within the United States played a crucial role in contributing to environmental injustices in many communities. To put it simply, redlining is "a discriminatory practice that consists of the systematic denial of services such as mortgages, insurance loans, and other financial services to residents of certain areas, based on their race or ethnicity."² As a result, redlining has contributed to the "segregation, disinvestment, and racial inequities in opportunities for homeownership and wealth accumulation"³ for people of color within the United States. In turn, homebuyers of color are disproportionately shut out from favorable loans and new housing development, which has contributed to the long term disinvestment in their neighborhoods, along with in them.

Because of redlining practices dictating where they can live, many communities of color are exposed to higher amounts of environmental pollution and experience poor health outcomes. For instance, in neighborhoods that are primarily comprised of people of color, levels of nitrogen dioxide, a harmful air pollutant, are 50% greater in communities of color than in primarily white neighborhoods.⁴ The disinvestment in neighborhoods of color started through economics, however it is entrenched in the intolerant social, environmental, and political spheres which we have created.

Interactive Lesson Plan

Case Studies

The lesson plan I developed (Fig. 4) utilized case studies focusing on Suffield and a neighboring town, **Enfield**, to allow students to explore environmental justice issues close to home.

In this activity, students:

1. Explored how different environmental hazards (**inactive & active hazardous waste sites**) and social (**percentage people of color** and **percentage below the quality of life threshold**) factors were distributed across the two towns.
2. Compared overlap between environmental hazards and social conditions in each town.
3. Explained the differences and relationships/patterns they noticed between the two towns.

EnviroAtlas

Through researching my case studies, I found EnviroAtlas; a digital mapping database. Through this interactive mapping platform, users are able to explore various mapping layers in an area, such as where people of color live, hazardous waste sites, and the percent of the population below the quality of life threshold.

While using this powerful tool, students can see through various layers where there is overlap, and then be able to make connections and conclusions based on that information because they can explore real data from their community.

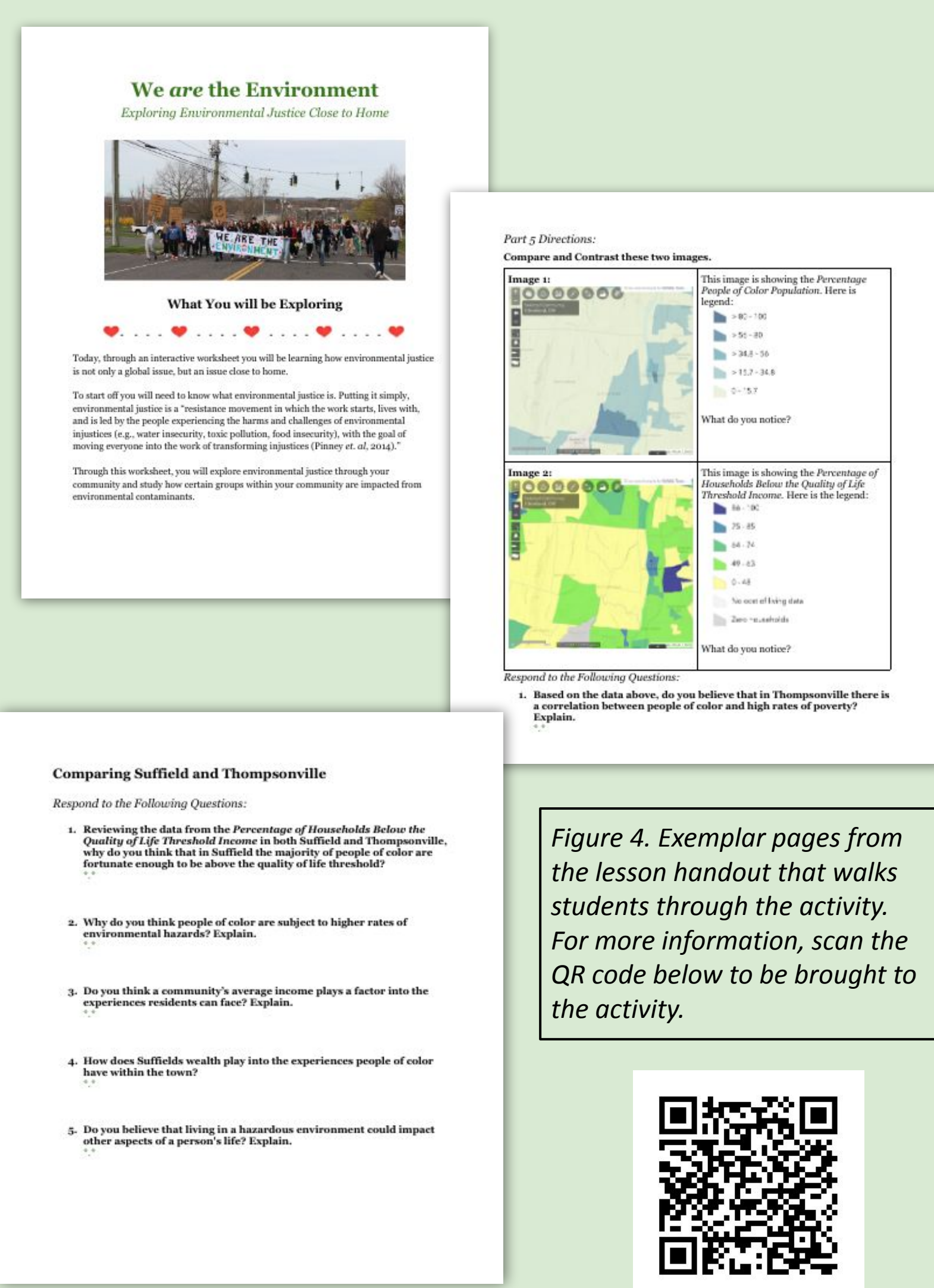


Figure 4. Exemplar pages from the lesson handout that walks students through the activity. For more information, scan the QR code below to be brought to the activity.



Project Motivation & Goals

Project Motivation

This project takes place in Suffield Connecticut, where historical and current housing and zoning inequities continue to negatively impact people of color (Fig. 1), similar to many other Connecticut towns.

Based on the latest census data, Suffield is a predominantly white (81.2%) and affluent (median income per household \$114,000) community.⁵

Affordable housing provides a way to diversify our communities. However, in Suffield the majority of affordable housing is located near the Suffield-Windsor Locks border (Fig. 1). Currently, due to historical land use, affordable housing units are located in areas situated near potential environmental hazards (Fig. 1).

Results from a survey conducted by the Town of Suffield Affordable Housing Plan Advisory Committee, illustrates that Suffield residents are conflicted on the ways to best utilize land in order to successfully promote affordable housing (Fig. 2).⁶

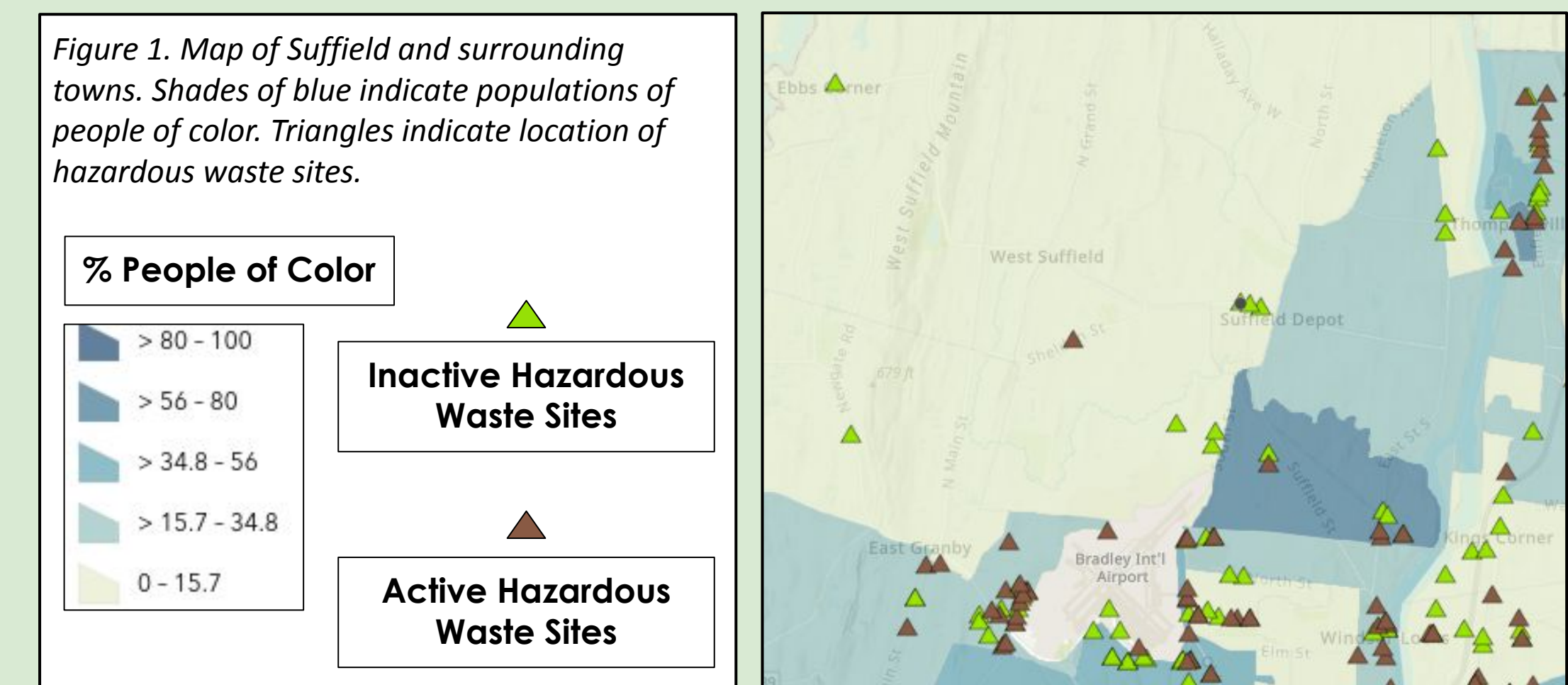


Figure 1. Map of Suffield and surrounding towns. Shades of blue indicate populations of people of color. Triangles indicate location of hazardous waste sites.

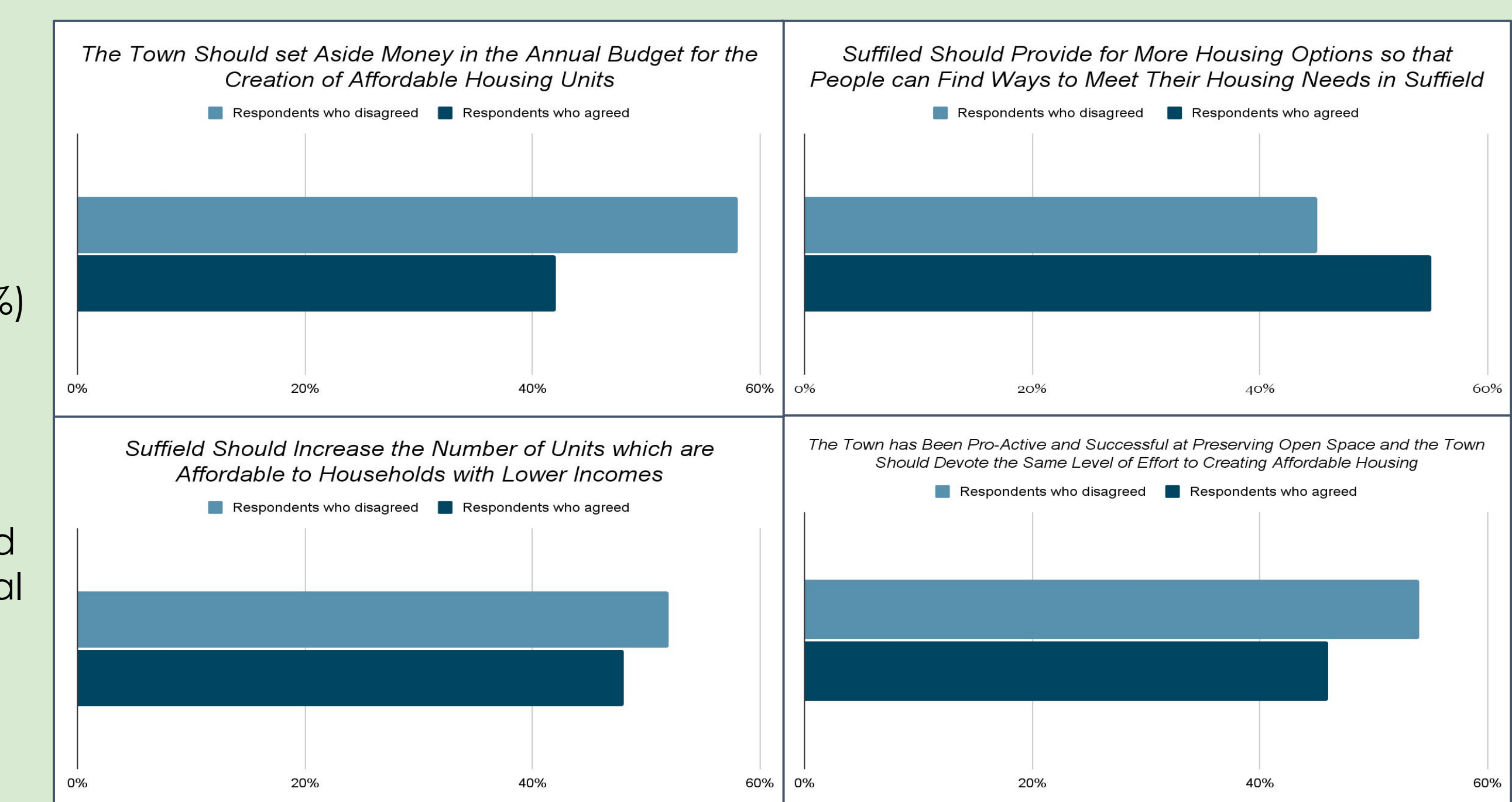


Figure 2. Town of Suffield Affordable Housing Plan Advisory Committee conducted a survey to learn more about community perception of housing needs and to gauge community support for possible housing strategies.⁵ The survey was conducted in 2021 and received 565 responses. The four graphs show the percent of responses that disagreed (light blue) and agreed (dark blue) with the statements at the top of each chart.

Project Goals

In an attempt to bring more awareness to the relationship between housing, redlining, environmental hazards, and environmental justice, I created an intercurricular activity which serves to:

- ♥ Educate Suffield High School students on what environmental justice is.
- ♥ Explore environmental justice through case studies close to home.
- ♥ Help students make connections between how different environmental and social factors in a community are related to one another.
- ♥ Explore and explain the different relationships within communities.

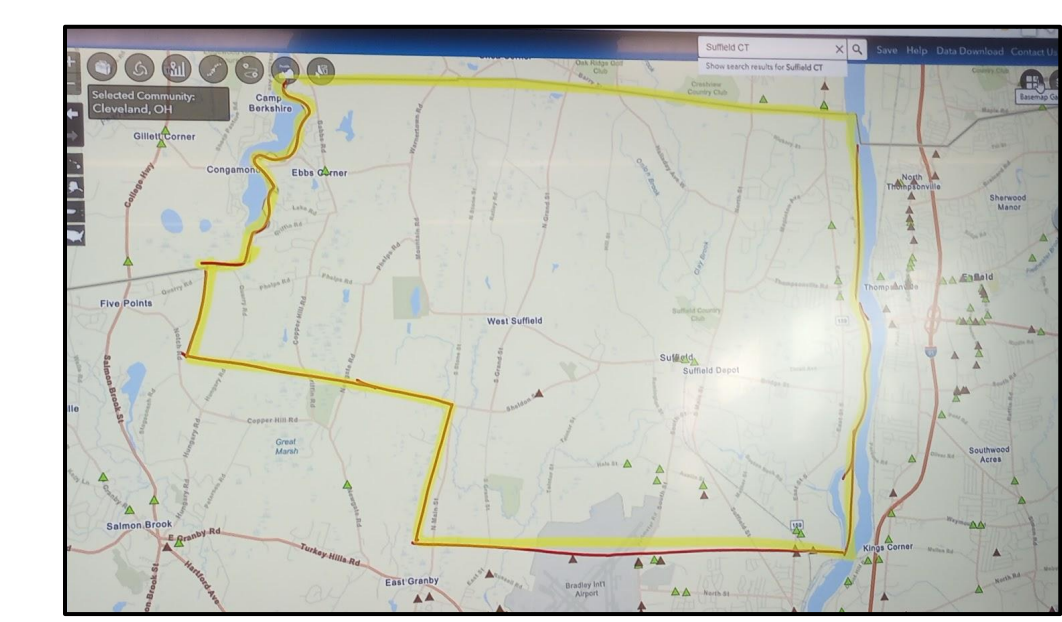


Figure 3. Town of Suffield border to highlight the lessons' geographic area.

Project Outcomes

Lesson Impact

Suffield High School's Science Department implemented this activity in Environmental Science and Environmental Physics & Chemistry classrooms.



Suffield High School students completing We are the Environment activity.

A total of 78 students participated in the activity. Students ranged from ages 14 to 18; grades 9,11,12.

Students were able to walk away from this activity knowing that:

- “ Due to current and historical discrimination, people of color have unequal opportunities which causes more poverty in their lives. Since many cannot afford to move, these hazardous sites are set up close to them and they must stay there. ”
- “ The more a population is exposed to contaminated air or soil, there is higher risks of health effects on that population. ”
- “ The land closer to the center of Suffield is owned by families which have accumulated generational wealth, which in turn allows significantly less space for people of color to move to these areas. ”



Image of Keila Silva connecting with educators and students regarding environmental justice.

Lessons Learned & Areas for Growth

While this lesson was designed to meet the Connecticut Social Studies and Science Department curricular standards, this activity only ended up being taught as part of two courses, Environmental Science and Environmental Physics & Chemistry. Due to curricular constraints, Suffield High School's Social Studies Department was unable to complete this activity, which ultimately limited the number of students reached.

One area for growth is to discuss with social studies teachers how to best tailor the lesson plan to facilitate integration into their curriculum.

A **second area of growth** could include analyzing the results of this work and revising the materials to probe more deeply into students beliefs and values regarding this topic.

Conclusions

We are the Environment was a successful activity, which Suffield High School students walked away from learning the importance of environmental justice, along with how environmental and social factors within a community impact the experiences of people of color face.

Further, I learned that educators were generally receptive and open to integrating the **We are the Environment** lesson plan into their Social Studies and Science curriculum. But, more time and planning is needed in order to fit it into a related unit.

Acknowledgements & References

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