

## **Environmental Justice in Philadelphia**

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### **Abstract**

This high school Social Studies unit addresses environmental racism and focuses on developing research skills to mount a social justice campaign. Students will explore environmental and demographic data to compare two areas in the Philadelphia region. They will be introduced to the following concepts: environmental justice, environmental racism, stakeholders, power analysis. They will look in depth at a particular case study and then will work on a group project researching a particular zip code and developing a report to distribute to stakeholders in the zip code they research. Students will develop the ability to look critically at data, research issues regarding environmental racism, and use tools of community organizing such as identifying stakeholders, providing research and outreach to stakeholders as a way to develop organizing skills.

### **Keywords**

- community organizing
- environmental justice
- environmental racism
- Philadelphia refineries
- power analysis
- racism
- stakeholders

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### **Unit Content**

What is environmental justice? What is environmental racism? Whose communities have been the site of environmental hazards and why? What would just development look like in a city with a history of redlining and environmental racism? What if human needs were put at the center and prioritized over business interests? How do we address environmental justice and use climate investments to promote climate justice?

According to testimony from the Public Interest Law Center, in regard to environmental racism in Philadelphia, “Pennsylvania ranks number 2 in the nation among states with the largest differences between races and between the wealthy and poor in exposure to air pollution.”<sup>1</sup>

In the same testimony, the attorney testified: “Another common environmental cause of asthma is fine particulate matter or PM 2.5. Rates of PM 2.5 pollution in Philadelphia, often formed from emissions of Nitrogen Oxides from power plants, are ranked the 12th worst out of 187 metropolitan areas across the country. According to the U.S. Environmental Protection Agency, “[e]levated levels of fine particulate matter in the air pose significant health concerns for the people of Philadelphia and many areas in the United States.”<sup>2</sup>

The findings of a 2021 study conducted by the Environmental Protection Agency found that in the United States, “people of color breathe more particulate air pollution on average...the findings expand a body of evidence showing that African Americans, Hispanics, Asians, and other people of color are disproportionately exposed to a regulated air pollutant called fine particulate matter (PM2.5).”<sup>3</sup>

This two-week unit will give students an initial background in understanding the concepts of environmental racism and environmental justice. Students will learn about Philadelphia’s struggles in this area overall and then will be looking at a specific case study - the refineries in Southwest Philadelphia.

Students will also be introduced to digital mapping sites and tools that can help them identify sites of environmental injustice and disproportionate impact in the Philadelphia region and identify an area to do additional research about. Students will develop some basic skills required in mounting an organizing campaign. Specifically, they will acquire skills in identification of stakeholders as well as the role of research in an organizing campaign.

Teaching about environmental issues is more critical than ever as we consider the multiple impacts of climate change on our communities local, nationally and internationally. Issues of equity within the area of climate change are critical to infuse in this area of study. The inequity of climate change can be summed up in 3 general categories:

1. *Generationally*, those who have reaped the benefits gained from fossil fuel, extractive and waste producing industries will not bear the consequences of their actions. It is the younger generations who will be left to grapple with this problem.<sup>4</sup> According to the Climate Central, “With high continued emissions, Millennials and Gen Z across 242 U.S.

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<sup>1</sup> City Council Testimony on Environmental Health Disparities and Environmental Racism in Philadelphia.” Public Interest Law Center. <https://pubintlaw.org/cases-and-projects/city-council-testimony-on-environmental-health-disparities-and-environmental-racism-in-philadelphia/>

<sup>2</sup> Ibid

<sup>3</sup> “Study Finds Exposure to Air Pollution Higher for People of Color Regardless of Region or Income” US Environmental Protection Agency, September 20, 2021. <https://www.epa.gov/sciencematters/study-finds-exposure-air-pollution-higher-people-color-regardless-region-or-income>

<sup>4</sup> E. Chu, K. Michael. “Recognition in urban climate justice: marginality and exclusion of migrants in Indian cities” in Environment and Urbanization, 31 (1)(2019), pp. 139-156, 2019

locations would experience 1.8x to 2x more lifetime warming, respectively, than Baby Boomers.”<sup>5</sup>

2. *Geographically*, countries in the global south who have contributed the least to climate change are inordinately affected and lack the resources and infrastructure to address the consequences of climate change. Similarly, within the US, exposure to environmentally hazardous conditions is class and race determined, with people of color and poor people bearing the largest exposure.<sup>6</sup>
3. *Disproportionately*. Those most deeply affected by environmental injustice must deal with structural inequality where power within government, media, education systems and other institutions supported historical processes during which patterns of inequality, operation, segregation, vulnerability, and privilege have been and continue to be produced within cities.<sup>7</sup>

## Teaching Strategies

- Didactic Instruction: Teacher delivered (or material delivered) fact-based information required for the unit.
- This instruction will be enhanced by providing students with graphic organizers for note taking as needed.
- Small group discussion: Students will engage in discussions in small groups in response to articles or teacher directed prompts.
- [Question Formulation Technique](#) from the Right Question Institute: Students will use Question Formulation Technique from Harvard University’s Right Question Institute to formulate investigative questions that will inform the unit.
- [See, Think, Wonder protocol](#) from Harvard University, Project Zero.
- Independent and group research conducted by students as they identify specific environmental issues affecting local communities.

## Unit Objectives

- Students will understand concepts of environmental justice, climate justice and environmental racism and use that understanding to help identify and analyze conditions in various communities.
- Students will utilize multiple forms of data gathering, and then synthesize, evaluate and summarize the data.
- Students will understand how to identify stakeholders and people with power decision
- Students will formulate recommendations for just remediation and solutions to mitigate environmental injustice.

## Essential Questions:

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<sup>5</sup> “Warming Across Generations.” Climate Matters, March 22, 2023. Climate Change. <https://www.climatecentral.org/climate-matters/warming-across-generations>

<sup>6</sup> Young, Iris. Justice and the Politics of Difference. Princeton University Press, 1990.

<sup>7</sup> Mohtat and Khirfan. “The climate justice pillars vis-à-vis urban form adaptation to climate change: A review” Urban Climate, School of Planning, Faculty of Environment, University of Waterloo, Waterloo. 2021

- What is environmental justice?
- How do environmental issues disproportionately impact communities with high poverty and people of color?
- Why is this the case? How do we understand how the past informs the present?
- How can we discern the costs and benefits of proposed solutions?
- How can maps, graphs and data help us see where injustice exists?
- What are the challenges within data that has been published? How can communities generate their own data, make issues visible, control their own narratives and develop their own solutions?
- What measures can be taken to address environmental injustice?
- What might a just solution for an environmental issue look like?

### Final Performance Task (Group Project)

#### [Environmental Justice Final Performance Task](#)

### **Classroom Activities**

#### **Day 1: Environmental Justice - Multiple perspectives and clarification of terms**

Note: You will be using the [Question Formulation Technique](#) from the Right Question Institute. This is a process developed to help deepen students' ability to formulate good, critical questions. If you are unfamiliar with this technique, you could use the [See, Think, Wonder protocol](#).

You will need to use the two worksheets: Viewpoints Worksheet A and Viewpoints Workshop B.

Procedure:

1. Divide the class into small groups of 4 or 5, and then divide the small groups into either A groups or B groups.
  1. Assign Worksheet A to Group A.
  2. Assign Worksheet B to Group B.
2. Explain to students to ignore the questions on the worksheet for now. They are just to focus their attention on the pictures.
3. Use either QFT or See, Think, Wonder as protocols to help students interrogate the images they see.
4. Combine all of the group A students (depending on the size of your class). Have them come up with their top 3 questions collectively. Do the same for the Group B students.
5. Have students share their image and 3 questions with the class.
6. Explain to students that they will be looking into issues behind the images in the next few days. Depending on the quality of questions (or as the Q focus for prioritization if using QFT), highlight the questions that they will be digging into.

7. Explain that what you will be investigating will include FACTS - such as data, but also OPINION (how the data is interpreted, points of view with special interest, etc)
8. Have student return to their small groups and have each group fill in the “Viewpoint Worksheet” for their image. Each group will discuss their image from various perspectives:
  1. A person who lives in that area/zip code
  2. A person who owns a business in that area/zip code but who doesn't live there.
  3. A government representative for the area (Such as a city councilmember)
  4. A member of the Chamber of Commerce or other organization that supports business interests
  5. A pediatrician
  6. A community activist
  1. [Viewpoints Worksheet A](#) (also available in the appendix)
  2. [Viewpoints Worksheet B](#) (also available in the appendix)
9. Ask each group for some things that stood out for them in this discussion.
10. Distribute the [Podcast or Audio Graphic Organizer](#) (also available in the appendix). Explain that their homework will be to listen to a 20 minute podcast. They will use this graphic organizer to take notes. Explain what each section means.

Homework: Have students listen to [The Color of Climate Change](#) “Environmentalism isn’t just a white issue. Black grassroots activists have been leading from the start.” podcast from [:A Word ... With Jason Johnson](#). This is a 20 minute podcast. The link is also here: <https://slate.com/podcasts/a-word/2021/08/i-cant-breathe-racial-justice-and-the-environment>

### **Day 2: “Stealing Health and Wealth”**

1. Place students into small groups and have them share their notes from the podcast they took on the Graphic Organizer
2. Have each group pick the 3 most important points they think were in the podcast and 1 set of data or quote that they agree on as important. Ask students to look at the vocabulary from the day before, pick 2 of the vocabulary words to describe what was on the podcast and why those words applied to this information. Tell students to be prepared to report out.
3. Have each group to report out some of the highlights of their conversation.
4. Give each group one of the [excerpts from the transcript of the podcast](#) (this is also available in the appendix) to read together. Have them prepare to talk to the class about the term on the sheet that was placed at the top of the page and how they think it was defined in the show.

**Homework:** Place this quote from the podcast on the board: “Environmental racism is stealing health and wealth.” Tell students that Dr. Bullard said this during the podcast. Ask students to write at 1-2 paragraphs on what they think this means and whether or not they can think of any examples in Philadelphia. You will collect these as a formative assessment. You may choose to spend time in the next class having students do partner reading of each others’ responses or any other protocol you might use when looking at student work.

### **Day 3: The Refineries - Part 1**

1. Introduction of terms: have students look at the [Environmental Justice Terms](#). Tell them to first read the definitions themselves. Tell them to turn to an elbow partner and talk about the terms and what they mean.
2. You will be using the [Vocabulary Venn Diagram graphic organizer](#) (also available in the appendix) for students to process their understanding of the vocabulary. You may also choose to copy the Venn diagram on to newsprint for students to use.

Ask them to fill in the Venn diagram together.

3. Reconvene the students and have one group represent their Venn diagrams.
4. Explain to students that they will be working on looking at environmental pollution in two different zip codes.
5. Put students in groups of 2 or 3. Tell students to go to this website: <https://www.epa.gov/ejscreen>

Once at this website, they should push the “Launch EJ Screen tool”. They will see a map and on the upper right hand, they will see a box for a zip code. Ask them to put in the following zip code: 19146

They should work together to fill in the [EPA Environmental Justice Worksheet](#). You may want to do the first one so they can see how to access things and also how to interpret the data.

6. Have students discuss the data in their small group and complete the [See/Think/Wonder](#) form.
7. Bring students back together and ask them to share one thing from their Think and one thing from their Wonder sections. You may choose to record these on newsprints. Tell the students you will be revisiting this data later on in the unit.

**Homework:** (Note to teacher: You’ll be using the [Part, Purposes and Complexities protocol](#) from Making Thinking Visible for this homework assignment.) Give students the [Environmental Racism is a System Worksheet](#). Tell students that the data they looked at was not a “coincidence” - it was a pattern and part of a system. Ask them to think about the system of environmental racism and as homework, to fill in the worksheet for discussion the following day.

### **Day 4: The Refineries - Part 2**

1. Have students take out their worksheets (Environmental Racism is a System). In groups of 2 or 3, they should discuss the 3 questions on the worksheets. Ask each group to share one or two points that stood out for them.
2. Show the videos [Philadelphia Activist: 'Oil Refinery Explosion Literally Rocked the Very Foundation of my Community'](https://youtu.be/gWDOfcblQJY) (7 minutes) and [Philly Locals: It's Time to Shut Down Philadelphia Energy Solutions Refinery](https://youtu.be/-f0ggo18upk) (<https://youtu.be/-f0ggo18upk>) Tell students to use the [Video Analyses Organizer](#) to take notes.
3. In small groups, have students discuss the videos they have viewed. Use these question prompts:
  1. What are the main issues faced by the residents of Grey's Ferry?
  2. Do you think the policies and actions proposed are effective answers?
  3. Are there alternative policies and/or actions you would propose?

**Homework:** Ask students to look at the information on the refinery from the EPA Environmental Justice website [here](https://ejatlas.org/print/united-states-oil-refinery-philadelphia-energy-solutions-releases-high-levels-of-benzene-and-other-carcinogenic-pollutants-in-south-philadelphia). (<https://ejatlas.org/print/united-states-oil-refinery-philadelphia-energy-solutions-releases-high-levels-of-benzene-and-other-carcinogenic-pollutants-in-south-philadelphia>)

Distribute the [homework questions \(EPA Environmental Justice - Philadelphia Refineries\)](#) for students to work on.

#### **Day 5: Pick your location**

1. In small groups have students review their homework. Have them produce a headline (a short statement similar to a newspaper or web article headline) about what a “just remediation” they imagine could happen.
2. Explain to students that the residents of Grey's Ferry needed to go through a number of things to arrive to where they are today. These include:
  1. education (about the issue)
  2. research (about stakeholders, about the issue, about the influencers)
  3. plans of action (tactics used to apply pressure)
  4. reflection (What does a “win” look like? Was a win achieved? if not, what else needs to happen?)
3. As individuals, have students use the EPA Environmental Justice website and research a zip code in Philadelphia that means something to them. It could be where they live, where their school is located, where they like to hang out, or a community they are interested in learning more about. Fill in the worksheet entitled [EPA; Environmental Justice Worksheet 2](#)

**Homework:** Students will pick a location to research and develop a campaign for justice around. They should look at what they have learned about their zip code they researched and be prepared

to present the research to their small group the following day as they students will be deciding on a zip code to focus their final performance task on.

Days 5-7 Introduce the Performance Task and work on the performance task in small groups (3 days)

Day 8 Group presentations of final reports with feedback from classmates (Glows and Grows)

Days 9-10 Refine reports and cover letters to be sent out.

## Resources

City Council Testimony on Environmental Health Disparities and Environmental Racism in Philadelphia.” Public Interest Law Center. <https://pubintlaw.org/cases-and-projects/city-council-testimony-on-environmental-health-disparities-and-environmental-racism-in-philadelphia/>

The Color of Climate Change “Environmentalism isn’t just a white issue. Black grassroots activists have been leading from the start.” A podcast from :A Word ... With Jason Johnson. This is a 20 minute podcast. The link is also here: <https://slate.com/podcasts/a-word/2021/08/i-cant-breathe-racial-justice-and-the-environment>.

Environmental Protection Agency – Environmental Justice Screen: <https://www.epa.gov/ejscreen>

Video: Philadelphia Activist: 'Oil Refinery Explosion Literally Rocked the Very Foundation of my Community' (<https://youtu.be/gWDOfcblQJY>) (7 minutes)

Video: Philly Locals: It's Time to Shut Down Philadelphia Energy Solutions Refinery (<https://youtu.be/f0ggo18upk>) (5 minutes)

EPA Environmental Justice website - Philadelphia Energy Solutions refinery's toxic releases in South Philadelphia, US. (<https://ejatlas.org/print/united-states-oil-refinery-philadelphia-energy-solutions-releases-high-levels-of-benzene-and-other-carcinogenic-pollutants-in-south-philadelphia>)

### Additional Resources for Teachers:

Video: Robert Bullard: How Environmental Racism Shapes the US. <https://www.pbs.org/wnet/amanpour-and-company/video/robert-bullard-how-environmental-racism-shapes-the-us/>

Graphic: Mapping Asthma in Philadelphia <https://storymaps.arcgis.com/stories/8b0d4bf7831340e49f516e8af48a4624>

Data Maps: Socioeconomic Status, Air Quality and Asthma Prevalence to Assess Environmental Justice in Philadelphia Paula Kwasniewska University of Pennsylvania [https://repository.upenn.edu/cgi/viewcontent.cgi?article=1090&context=mes\\_capstones](https://repository.upenn.edu/cgi/viewcontent.cgi?article=1090&context=mes_capstones)



Video: Wake Up Call video: Technical video about the causes of the explosion at the Philadelphia Refinery

<https://youtu.be/gc8qXTh6tTY>

Video: Hearing Held On Environmental Impact Of Explosion At Philadelphia Energy Solutions Refinery

<https://youtu.be/NLjEd544oyo>

1.5 minute news report on hearings.

Website: Segregation by design: An atlas of redlining, “urban renewal,” and environmental racism <https://www.segregationbydesign.com/>

## **Appendix**

### Handouts for Day 1

- Viewpoints Worksheet A
- Viewpoints Worksheet B
- Podcast or Audio Graphic Organizer

### Handouts for Day 2

- Excerpts from the transcript of the Color of Change

### Handouts for Day 3

- Environmental Justice Terms
- Vocabulary Venn Diagram graphic organizer
- EPA Environmental Justice Worksheet
- See Think Wonder

### Handouts for Day 4

- Video Analyses Organizer
- Homework: EPA Environmental Justice - Philadelphia Refineries

### Handouts for Day 5

- EPA; Environmental Justice Worksheet 2

### Handouts for Day 6

- Environmental Justice Final Performance Task

## Environmental Justice: Viewpoints Worksheet - Group A



What would be the reaction to this photo from the perspective of:

- a. A person who lives in that area/zip code
- b. A person who owns a factory in that neighborhood but who doesn't live there.
- c. A government representative for the area (Such as a city councilmember)
- d. A member of the Chamber of Commerce or other organization that supports business interests
- e. A pediatrician
- f. A community activist

## Viewpoints Worksheet - Group B



What would be the reaction to this photo from the perspective of:

- a. A person who lives in that area/zip code
- b. A person who owns a factory in that area/zip code but who doesn't live there.
- c. A government representative for the area (Such as a city councilmember)
- d. A member of the Chamber of Commerce or other organization that supports business interests
- e. A pediatrician
- f. A community activist

**Title of Podcast:**  
**Topic:**  
**Audience:**  
**Length:**

**Source:**

**Favorite Part/Quote:**

**What questions do you have?**

**Summary of Podcast (Include at minimum 5 specific details or references.)**



**Visualize It**

**Would you recommend this to others? If so, what age group? Why?**

## Transcript Excerpts from “The Color of Change” Podcast

### Excerpt 1

**Question: Explain in your own words what “disaster capitalism” means.**

S1: What is disaster capitalism and how does that also show us what environmental racism can do to this country?

S2: OK, let me give you an example. When a storm Yurie that happened in February of this year, we used to prepare in the Gulf Coast for disasters. June through November. That’s hurricane season. But climate change is making us have to prepare year-round. And so the communities that got hit the hardest in Harvey in terms of 2017, those Esack communities, those communities that were further marginalized, you’re talking, you know, Fifth Ward. You start going up that corridor where you have just nothing but high concentration of people of color, working class folks and folks who are who are very vulnerable when it when it when it rains a lot. Then you look at this ice storm that happened in February, the same communities got hit the hardest and having more problems trying to bounce back because the way that it works is disaster capitalism. You asked me to find it. Money follows money. Money follows power. Money follows whites. After billions and billions of dollars that go in for recovery, white communities end up better off after the recovery dollars go in. Whereas communities of color end up worse off.

### Excerpt 2

**Question: Explain in your own words what “infrastructure” is. Why does it matter?**

S1: I think back to growing up as a kid and watching Fat Albert and thinking about the fact that those kids didn’t have a park, that they were playing in a junkyard. Now, we were supposed to think it was cute, but it was because they were all basically forced into the ghetto. They didn’t have a clean, open space to play. They couldn’t play stickball. They’re

hanging around rusted pieces of metal and garbage and trash and things like that. And so, what you're saying to me basically is, is that some of what we're seeing, that everything from not being able to get clean groceries to having to play in a junkyard because that was the safest place to be are examples of not only black wealth being stolen, but also black people being victimized by racism.

S2: You hit it on the head. We're talking about infrastructure and whether it's a park, a school or a landfill or a highway, all infrastructure is not created equal. And infrastructure has been a way of passing out the goods and passing out the bad. And we call it infrastructure redlining. Highways have literally just run through black communities and have destroyed homeowners and business corridors. You know, they say that the shortest distance between two points is a straight line, but highways don't go in straight lines. Oftentimes, they detour around affluent communities. They don't cut through those wretched communities, but they rip through our communities. That is a form of transportation, racism.

### **Excerpt 3**

***Question: Explain the term "gentrification" in your own words. What is its relationship with environmental racism?***

S1: Dr Bullard, we're going to talk a little bit about gentrification. My first question is, how is gentrification connected to environmental racism? Because I think a lot of people just see it as a money issue, but there's an environmental racism element to this. So can you sort of add that to the gentrification puzzle?

S2: Jason, this is how we define environment. The environment is where we live, work, play, learn, worship, as well as the physical, the natural world. So where we live, that's a neighborhood where we work, where we play. We talk about housing, schools, parks. We're talking about workers. We're talking about our natural area where we have all those things that make up community and is in fact, disinvestment has occurred in a certain area because of racism in the housing market and in the job market when that's lifted. And you say, OK, the prices have been driven down to the point where, OK, you have a close-knit neighborhood and now it's being rediscovered. And let's say

let's let the market forces drive the new investments, whereas before it was not market forces driving the disinvestments, it was public policies and disinvestments in terms of infrastructure being starved by city governments and county governments. And so the racial dynamics is when you start overlaying communities that are now basically allowed to redevelop and to revitalize by just using market forces and in some cases allowing infrastructure dollars to go in to subsidize that revitalization. And public dollars are being used to subsidize that. And what our justice movement says is that no federal dollars, no tax dollars should be used in a discriminatory way. We have laws against that. And any time it occurs, infrastructure is another one of those issues where the infrastructure investments, those are tax dollars. And oftentimes they're being used to block people from investments in those neighborhoods and they're pushed out. And then investments come back in. And we see that happening in every major city in this country. And it's very predictable who's most likely to gain by investments.

#### **Except 4**

***Question: Explain in your own words what Dr. Bullard calls "justice." Do you agree that justice unifies the causes young people now care about?***

S1: How have you seen the attitudes of young black people change about the importance of Environmentalism? Because 15 years ago it used to be. Yeah, I guess I should be concerned about clean water, but I'm more worried about the cops nowadays. I hear people almost put those on the same level.

S2: You know, in nineteen seventy-nine when we did Houston study, I had ten black students in my research class. It wasn't predominately black, that it was all black class. We had some issues in the Houston case. We couldn't get any help from the green groups or the white environmental groups. Neither could we get any help from the one of the oldest civil rights organizations. Not going to call your name, but we all know the initials NAACP. That was 1970, not. It took almost two decades for the environmental groups and our civil rights groups to move this to the top of the agenda. It was a footnote in 1979. Today, it's a headline. And so the idea of the quest for justice, it is a race, but it's not a sprint. It's more like a marathon relay. You run your twenty-six point two miles and then

you pass the baton to the next generation to run that twenty-six point two. And that passes the baton right now. It was a big passing the baton in the summer of twenty. And with the awakening on racial justice, criminal justice, environmental justice, economic justice, climate justice, energy justice, food and water justice, justice basically became the central theme cutting across. And young people get it. I'm a boomer, but Gen Xers are millennials and younger. They represent the majority of this country. And these young black people are fearless. That's what we have to get back to, understanding the intergenerational connection that when we come together, we can work this thing through because we got one playbook. And that playbook has just this on the cover, one word justice.



## Environmental Justice Terms

### Environmental Justice

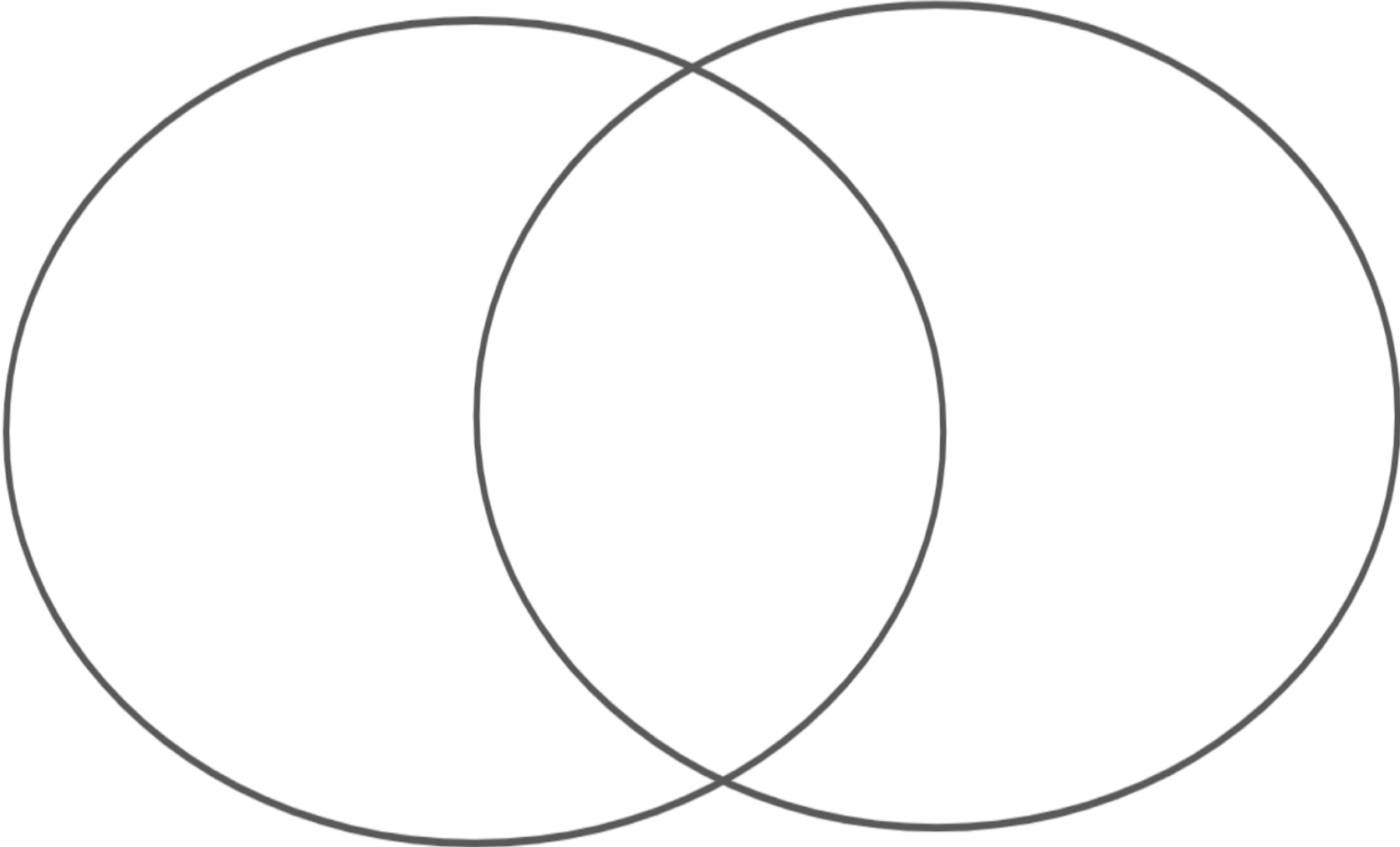
Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no population bears a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or from the execution of federal, state, and local laws; regulations; and policies. Meaningful involvement requires effective access to decision makers for all, and the ability in all communities to make informed decisions and take positive actions to produce environmental justice for themselves.

Source: <https://www.energy.gov/lm/what-environmental-justice>

### Environmental Racism

Environmental racism is the disproportionate impact of environmental hazards on people of color. Environmental racism refers to the institutional rules, regulations, policies or government and/or corporate decisions that deliberately target certain communities for locally undesirable land uses and lax enforcement of zoning and environmental laws, resulting in communities being disproportionately exposed to toxic and hazardous waste based upon race. Environmental racism is caused by several factors, including intentional neglect, the alleged need for a receptacle for pollutants in urban areas, and a lack of institutional power and low land values of people of color. It is a well-documented fact that communities of color and low-income communities are disproportionately impacted by polluting industries (and very specifically, hazardous waste facilities) and lax regulation of these industries.

Source: <https://greenaction.org/what-is-environmental-justice/>



Environmental Justice

Environmental Racism

## EPA Environmental Justice Worksheet 1

Go to this website: <https://ejscreen.epa.gov/>

Click on the button that says “Launch the EJ Screen Tool”

On the left hand side, is a box with a number of categories. Click on the box. The drop down menu shows more choices. When you click on one of those items, it shows a color coded map ranging from red to light grey. Each color corresponds to a percentile.

Use this worksheet to record the data you see on the maps in terms of general range in each area (what is the lowest color range you see, and what is the highest). Make sure you check that only one category is clicked as you record your data. Record the data for these areas below:

<b>Environmental Justices Index</b>	<b>19146 - P0int Breeze</b>	<b>19010 - Bryn Mawr</b>
Air toxics cancer risk		
Air toxics respiratory H1		
<b>Socioeconomic Indicators</b>	<b>19146 - P0int Breeze</b>	<b>19010 - Bryn Mawr</b>
People of color		
Low income		
<b>Health Disparities</b>	<b>19146 - P0int Breeze</b>	<b>19010 - Bryn Mawr</b>
Low Life Expectancy		
Heart Disease		
Asthma		
<b>Critical Services Gap</b>	<b>19146 - Point Breeze</b>	<b>19010 - Bryn Mawr</b>
Broadband Gaps		
Food Desert		
Medically Underserved		

**See, Think, Wonder**

Record what you see - not what you think but what the data actually shows you.

Record what you think about what the data is showing you.

Record what questions you have about the data.

## Environmental Racism as a Structure

Consider the data you collected on the two zip codes you were given and the definition of environmental racism that you discussed. Using your observations from the data collected, complete the following:

Statement: Environmental racism is a system.

1. What are its parts? What are its pieces or components?
2. What are its purposes? What are the purposes of each of these parts?
3. What are its complexities? How is it complicated in its parts and purposes and in the relationship between the two. What other systems are in play that reinforce the system of environmental racism?

## Video Analysis Organizer

Name of film		
People	Places	Events

Purpose of the video

Policies and actions proposed

Questions I have

Homework: EPA Environmental Justice: Philadelphia Energy Solutions refinery's toxic releases in South Philadelphia, US

<https://ejatlas.org/print/united-states-oil-refinery-philadelphia-energy-solutions-releases-high-levels-of-benzene-and-other-carcinogenic-pollutants-in-south-philadelphia>

1. Read the information on the website.
2. From the video in class, and the reading:
  - a. identify the environmental issue, the causes of the issue and the consequences/effects of the issue on the community.
  - b. identify the stakeholders in this issue and what their perspective is
  - c. Identify tactics used to bring attention to the issue
  - d. Identify decision makers who might have an impact on this project
3. Consider the explanation of the issue on the website. How does Philly Thrive distinguish “The Right to Breathe” to “The Right to Thrive?” What would need to be considered for this to be a “just remediation and redevelopment process.”

*“On the surface, it seems like justice has been served. The refinery closed, the property is being remediated, and the community of Grays Ferry will be able to breathe freely once again. However, questions remain about the integrity of Hilco’s goals and whether the new development will bring gentrification and further ostracize or displace people of color and low-income folks in South Philly.”*

*The group Philly Thrive considers their Right to Breathe campaign a success. However, their Right to Thrive campaign is still in progress. Its focus is a just remediation and redevelopment process.”*

## EPA Environmental Justice Worksheet 2

Go to this website: <https://ejscreen.epa.gov/>

Click on the button that says "Launch the EJ Screen Tool"

Zip Code you are researching: \_\_\_\_\_

Name of neighborhood you are researching: \_\_\_\_\_

<b>Environmental Justices Index</b>	
Air toxics cancer risk	
Air toxics respiratory H1	
<b>Socioeconomic Indicators</b>	
People of color	
Low income	
<b>Health Disparities</b>	
Low Life Expectancy	
Heart Disease	
Asthma	
<b>Critical Services Gap</b>	
Broadband Gaps	
Food Desert	
Medically Underserved	



## **Environmental Justice - Final Performance Task**

### Final Performance Task (Group Project)

You will be working to collect data, research the causes for what you see in the data, identify stakeholders, and craft and send a finished report about your findings to at least four stakeholders or influencers of the neighborhood you have researched.

### Procedure

1. In your group, pick an area of the city to research - either your school neighborhood, the neighborhood where you live, or a neighborhood you are interested in learning more about. Any zip code you decide on must have a toxic level of at least one area in environmental justice risks or health risks that is in the 80th percentile or higher.
2. Use the EPA Environmental Justice website to search the zip codes of your neighborhood of choice. Fill in the data on the data collection sheet. Research the historical source of any toxins in the neighborhood and whether or not there have been any local efforts to address the situation.
3. Identify community/institutional assets (community organizations, library, church, etc.) that are in the neighborhood. Identify elected officials that represent that neighborhood on the city, state and federal level. List the stakeholders you have found in the neighborhood and why they think these particular entities are stakeholders and how you think they may react to seeing the data you have collected.
4. Do a power analysis. Identify who has power over this situation, and what you would need to do to influence them.
5. Decide: What will you ask for? Why will you ask for it? Who are your targets? Who are your allies? Who might be your opposition? What does a “just” solution look like.?

### Final Product

#### **Report to the Community**

Write a report for the organizational/institutional stakeholders in the neighborhood. The report should include:

- the data you collected
- the research done as to causes/origins of the environmental issues you have found
- the implications for the neighborhood when looking at the toxins - what effects could those issues have on the people/ecosystem in the community

The report should include your data sheet, a summary of your research with citations and why this is an area of concern.

You will write cover letters for each organization, institution and official you have identified. The cover letter will explain who you are, why you conducted the research you are sharing, and why you are choosing to send it to the particular individual/entity you are writing to. In writing the cover letter, consider the audience for whom you are writing. Each letter must be individualized. You are expected to craft three letters.

### **Additional required elements for your project**

You will also need to submit:

**Stakeholders:** A list of stakeholders you have identified and why they think these particular entities are stakeholders and how you think they may react to seeing the data you have collected.

**Power Analysis:** Your power analysis of who has - or who might have - power over this situation, and what you would need to do to influence them.

**Just solution:** Your conclusion of what a just solution to the issue would look like in the neighborhood you have studied.

**Standards addressed in this unit**  
**College, Career, and Civic Life (C3) Framework for Social Studies State Standards**

D1.1.9-12. Explain how a question reflects an enduring issue in the field.

D1.4.9-12. Explain how supporting questions contribute to an inquiry and how, through engaging source work, new compelling and supporting questions emerge.

D1.5.9-12. Determine the kinds of sources that will be helpful in answering compelling and supporting questions, taking into consideration multiple points of view represented in the sources, the types of sources available, and the potential uses of the sources.

D2.Civ.1.9-12. Distinguish the powers and responsibilities of local, state, tribal, national, and international civic and political institutions.

D2.Civ.5.9-12. Evaluate citizens' and institutions' effectiveness in addressing social and political problems at the local, state, tribal, national, and/or international level.

D2.Civ.6.9-12. Critique relationships among governments, civil societies, and economic markets.

D2.Civ.7.9-12. Apply civic virtues and democratic principles when working with others.

D2.Civ.10.9-12. Analyze the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights.

D2.Civ.12.9-12. Analyze how people use and challenge local, state, national, and international laws to address a variety of public issues.

D2.Civ.14.9-12. Analyze historical, contemporary, and emerging means of changing societies, promoting the common good, and protecting rights.

D2.Eco.1.9-12. Analyze how incentives influence choices that may result in policies with a range of costs and benefits for different groups.

D2.Geo.2.9-12. Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions and their political, cultural, and economic dynamics.

D2.Geo.4.9-12. Analyze relationships and interactions within and between human and physical systems to explain reciprocal influences that occur among them.

D2.Geo.5.9-12. Evaluate how political and economic decisions throughout time have influenced cultural and environmental characteristics of various places and regions

D2.Geo.8.9-12. Evaluate the impact of economic activities and political decisions on spatial patterns within and among urban, suburban, and rural regions.

D3.1.9-12. Gather relevant information from multiple sources representing a wide range of views while using the origin, authority, structure, context, and corroborative value of the sources to guide the selection.

D4.2.9-12. Construct explanations using sound reasoning, correct sequence (linear or non-linear), examples, and details with significant and pertinent information and data, while acknowledging the strengths and weaknesses of the explanation given its purpose (e.g., cause and effect, chronological, procedural, technical).

D4.6.9-12. Use disciplinary and interdisciplinary lenses to understand the characteristics and causes of local, regional, and global problems; instances of such problems in multiple contexts; and challenges and opportunities faced by those trying to address these problems over time and place.

D4.7.9-12. Assess options for individual and collective action to address local, regional, and global problems by engaging in self-reflection, strategy identification, and complex causal reasoning.

#### **Social Justice Standards from Learning for Justice**

JU.9-12.12 I can recognize, describe and distinguish unfairness and injustice at different levels of society.

AC.9-12.16 I express empathy when people are excluded or mistreated because of their identities and concern when I personally experience bias.

AC.9-12.17 I take responsibility for standing up to exclusion, prejudice and injustice.

AC.9-12.20 I will join with diverse people to plan and carry out collective action against exclusion, prejudice and discrimination, and we will be thoughtful and creative in our actions in order to achieve our goals.