

Big Idea – Everyone Deserves Clean Air

Proportions show **how parts relate to the whole**. In many cities, neighborhoods with more families of color or lower incomes face **higher proportions of pollution** from factories, highways, or waste sites. Math helps us identify where these **environmental injustices** exist so communities can work toward **clean air, safe water, and equal protection for everyone**.

Math + Equity Example

A city has two neighborhoods:

- **Neighborhood A (higher income):** 200 homes, 20 near factories → $20/200 = 1/10$ (10%)
- **Neighborhood B (lower income):** 200 homes, 80 near factories → $80/200 = 4/10$ (40%)

Neighborhood B has a **much higher proportion** of families exposed to pollution. Using proportions helps us clearly see and discuss how **environmental risks are not shared equally**, and why advocacy for fairness is necessary.

Data Reflection

Circle or underline the word that stands out to you:

fairness | environment | exposure | justice | protection

Share Your Thinking

The word I picked is: _____

I picked this word because:

Reflection:

How does this word connect to what we are learning about pollution and environmental justice today?

Student Equity Reflections

1. What does this math example show about how pollution affects neighborhoods differently?

2. Which neighborhood has the higher proportion of homes exposed to pollution? How much higher is it?

3. Why do you think some neighborhoods face more environmental risks than others?

4. What actions could schools, students, or community leaders take to promote environmental fairness?
