

Big Idea – Design Shapes Accessibility

Perimeter is the **distance around a shape**. In neighborhoods, perimeter helps show how long it takes to **walk around a block**. Communities with **short, safe, and connected blocks** are easier to walk, while areas with **long or unsafe blocks** limit mobility and access—especially for families without cars. Math helps us measure these differences and discuss how **equitable design can improve health, safety, and fairness** in community spaces.

Math + Equity Example

Block A: Rectangle 200 ft × 300 ft

- **Perimeter = $2(200 + 300) = 1,000$ ft**

Block B: Rectangle 400 ft × 600 ft

- **Perimeter = $2(400 + 600) = 2,000$ ft**

Block B is **twice as long** to walk around, which may make it harder for students or families to reach parks, schools, or stores on foot. Perimeter helps planners and communities see how **design impacts access**—and why walkable neighborhoods matter for **community equity**.

Data Reflection

Circle or underline the word that stands out to you:

access | fairness | walkability | design | opportunity

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 community design and fairness today?

Student Equity Reflections

1. What does this math example show about how block length affects walkability?

2. Which block is longer to walk around, and by how many feet?

3. Why might longer or unsafe blocks make it harder for some people to access resources?

4. What changes could make your neighborhood more walkable, safe, and connected?
