

Vocabulary Review Sheet

Lesson – Area and Fair Park Space per Neighborhood Resident

How to Use

- Review each vocabulary word before your quiz.
- Study the **math**, **real-life**, and **fairness** examples to understand how area connects to community planning and access.
- Keep this sheet in your *Equity in Numbers Student Journal* for reference during projects.
- Remember: *When we measure space fairly, we build fairness into our communities.*

Area

- **Definition:** The total amount of space inside a shape.
- **Math Examples:**
 - $(\text{Area} = \text{length} \times \text{width})$
 - $(800, \text{ft} \times 600, \text{ft} = 480,000, \text{ft}^2)$
- **Real-Life Example:** Measuring the size of a park or playground.
- **Fairness Example:** Comparing areas helps reveal which neighborhoods have more or less park space available for residents.

Square Units (ft^2 , m^2)

- **Definition:** The standard units used to measure area; each unit represents a one-by-one square.
- **Math Examples:**
 - A park's area = $350,000 \text{ ft}^2$ means it covers 350,000 one-foot squares.
- **Real-Life Example:** City planners measure park areas in square feet or square meters.

- **Fairness Example:** Using the same unit across neighborhoods ensures fair comparisons when evaluating park sizes.

Area per Person

- **Definition:** The amount of park space available to each resident; found by dividing total area by the number of people.
- **Math Examples:**
 - $(480,000 \div 2,400 = 200, \text{ft}^2/\text{person})$
- **Real-Life Example:** Each resident in a neighborhood having 200 ft² of green space.
- **Fairness Example:** Higher area per person means greater access to nature and recreation — a key measure of community equity.

Length and Width

- **Definition:** The two sides used to calculate the area of rectangles.
- **Math Examples:**
 - Length = 1,000 ft; Width = 800 ft → Area = 800,000 ft²
- **Real-Life Example:** A rectangular park's sides measured with tools or a map scale.
- **Fairness Example:** Measuring both sides accurately helps compare spaces between neighborhoods and ensures transparency in city planning.

Division

- **Definition:** A math operation that splits a total into equal parts.
- **Math Examples:**
 - $(\text{Area per person} = \frac{\text{Total Area}}{\text{Residents}})$
- **Real-Life Example:** Dividing 540,000 ft² of park space among 2,700 residents.
- **Fairness Example:** Division helps find how much space each person has — a fair-share comparison that guides equity discussions.

Resident

- **Definition:** A person who lives in a specific neighborhood or community.
- **Math Examples:**
 - 4,800 residents sharing 800,000 ft² of park space.
- **Real-Life Example:** Counting residents helps determine if a neighborhood's resources match its population size.
- **Fairness Example:** A fair city ensures every resident, regardless of where they live, has access to similar amounts of public space.

Neighborhood

- **Definition:** A local area within a city where people live, work, and play.
- **Math Examples:**
 - Greenview: 700×500 ft park area = 350,000 ft².
- **Real-Life Example:** Comparing Greenview, Oakside, and Riverbend helps show differences in park access.
- **Fairness Example:** Equitable neighborhoods have balanced access to parks, trees, and open spaces that support health and community.

Fairness / Equity

- **Definition:** Making sure every person and community has access to the same opportunities and resources.
- **Math Examples:**
 - Comparing area per person across neighborhoods to find imbalances.
- **Real-Life Example:** If one neighborhood has less green space per person, city leaders can use data to add new parks.
- **Fairness Example:** Math helps leaders make evidence-based decisions to build fairness into city design.

Compare

- **Definition:** To look at two or more values to see how they are alike or different.
- **Math Examples:**
 - Riverbend (200 ft²/person) vs. Oakside (167 ft²/person).
- **Real-Life Example:** Comparing park area per person helps identify where communities need more space.
- **Fairness Example:** Comparisons bring visibility to inequities that might otherwise go unnoticed in planning decisions.

Community Design

- **Definition:** The way public spaces, buildings, and parks are arranged within a neighborhood.
- **Math Examples:**
 - Designing equal-sized parks with similar area per person.
- **Real-Life Example:** Using geometry to ensure every family has safe access to outdoor space.
- **Fairness Example:** Fair design creates balanced access to recreation, improving quality of life for all residents.

Summary of Math + Fairness Connections

Concept	Math Focus	Fairness Connection
Area	Measures total surface	Reveals access to green space
Area per Person	Divides total area by residents	Shows fair or unfair distribution
Neighborhood Comparison	Uses data to analyze access	Identifies where investment is needed

Concept	Math Focus	Fairness Connection
Division & Units	Makes results measurable	Supports equal planning standards
Equity	Applies fairness to design	Builds healthier, balanced communities