Big Idea – Transportation Shapes Opportunity

Linear relationships show how two things change together. In many communities, **travel time increases as distance grows**, meaning that people in underserved neighborhoods often spend more time reaching schools or jobs. These longer commutes limit opportunity and create **invisible barriers** that affect success. Math helps us uncover these inequities and inspires solutions that make transportation systems **fair, efficient, and inclusive for all**.

Math + Equity Example

Travel Distance vs. Time

Distance (miles)	Time (minutes)
1	5
3	15
6	30
10	50

Equation:
Time = 5 × Distance

This steady growth pattern shows that as distance increases, travel time rises at a consistent rate. However, when **transportation access isn't equal**, people who live farther away face **greater challenges reaching education, healthcare, and jobs**—turning a simple math pattern into a real-world issue of fairness.

Equity Connections

Transportation equity means more than roads or buses—it's about **access to opportunity**. Students who spend long hours commuting may have **less time for homework, rest, or extracurriculars**, while adults face fewer job choices due to distance or unreliable transit. By studying linear relationships, we can **measure these barriers** and advocate for systems that bring schools, services, and workplaces **closer to everyone's reach**.

Data Reflection:

Circle or underline the word that stands out to you most:

access | travel | fairness | distance | 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 today?

_____

_____

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Student Equity Reflections

1. How many minutes would it take to travel **8 miles** if the rate is 5 minutes per mile? Show your work.

_____

_____

2. What does the equation *Time = 5 × Distance* tell us about how distance affects opportunity?

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3. Why might transportation inequity make it harder for students or workers to reach their goals?

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4. What can communities do to make travel routes more fair and accessible for everyone?

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