

Math Connections: Fractions, Percentages & Distance

Use your classroom's real transportation tally data for applied math

These activities use your classroom's actual weekly tally data. Best used after the Friday tally is complete. Students can work individually or in pairs.

Activity 1: Fractions of the Class

Write the week's totals on the board:

Total students: ____ **Walked:** ____ **Biked:** ____ **Bus:** ____

Student prompts:

"What fraction of our class walked to school on Monday? Write it as a fraction. Can you simplify it?"

"What fraction used active transportation (walk + bike + bus)? What fraction got a ride?"

"Do the two fractions add up to 1? Why should they?"

MA Framework: 3.NF.A.1 (understand fractions), 4.NF.B.3 (add fractions with like denominators), 5.NF.A.1 (add fractions with unlike denominators)

Activity 2: Percentages and Pie Charts

Convert the fractions from Activity 1 into percentages. Have students draw a pie chart showing the class's mode split.

"If 8 out of 22 students walked, what percentage is that? Round to the nearest whole number."

"Compare this week to last week. Did any percentages change? By how much?"

MA Framework: 5.NF.B.3 (interpret fractions as division), 5.MD.B.2 (represent and interpret data), 6.RP.A.3 (use ratio/percent reasoning)

Activity 3: Distance Estimation

Estimate the average walking distance from your school to the nearest neighborhood (use a map or ask a parent volunteer to help estimate).

"If 9 students walked an average of 0.4 miles each, how many total miles did our class walk today?"

"If we walk that distance 5 days a week for 4 weeks, how many total miles is that?"

"A person walking at 3 miles per hour burns about 200 calories per hour. If you walk 0.4 miles, about how many calories did you burn?"

MA Framework: 4.OA.A.3 (multi-step word problems), 5.NBT.B.7 (operations with decimals), 5.MD.A.1 (convert measurement units)

Extension: Challenge students to estimate total walking minutes for the class. Walking 0.4 miles at 3 mph takes about 8 minutes. Multiply by walkers per day. How much movement did the class get just from commuting?