



we're walking here nyc

ELEMENTARY SCHOOL

Step 2: Understanding the Numbers

Student Commute Recording Kit:

Bar Graph

Student Commute Bar Graph Project

PURPOSE

Use the commute data you've collected to create graphs with your students. Use these numbers to discuss 'green' transportation choices and understand the results in context.

CRUNCH THE NUMBERS

1. Once you've collected your data from the entire school body or your class (either with a wall chart, collection containers, or the survey), your students should add up the numbers for each category. This exercise works best if the students are divided into small groups with each group assigned to one or two categories.
2. Create a graph to visually emphasize the number of walkers. Choose between the following options:
 - **Choose the "Bar Graph: Total Numbers" worksheet to show the total of all of the days.** This will give the students a great comparison of modes.

OR

- **Choose the "Bar Graph: Average Per Day" worksheet to consolidate the data.** If appropriate to your grade level, have the students calculate the average per mode for each category. You should have three days' worth of numbers. Keep the grand totals to upload onto the Walking Schools website.
- The increments are left blank on the graph so that you have flexibility. If you have a large school, we recommend that you count by 50.
- Please remember that students taking public transit will count as "walkers" when Livable Streets Education calculates the percentage for your school.

TALK ABOUT YOUR GRAPHS

When you are finished making your graphs, have a discussion about the numbers. Here are some leading questions:

- If so many people walk to school, then why are streets so unsafe for pedestrians? Why is so much space devoted to cars?
- Do you think most people in the U.S. walk as much as we do in New York? Why or why not?
- What could we do to make walking even easier and safer in New York? How can we use this information to make our Public Service Announcement?

LOOK AT THE FUN FACTS:

Read through the Fun Facts sheet and discuss some of the connections with the data collected. How do your numbers compare?

CONTENTS OF THIS KIT

- "Bar Graph - Total Numbers Worksheet"
A quick way to visualize the numbers you've collected.
- "Bar Graph - Daily Average"
Requires that students calculate averages to use the data.
- Fun Facts About Getting Around the City.

OTHER MATERIALS

You may need a few other materials, that are not provided in this kit. These include:

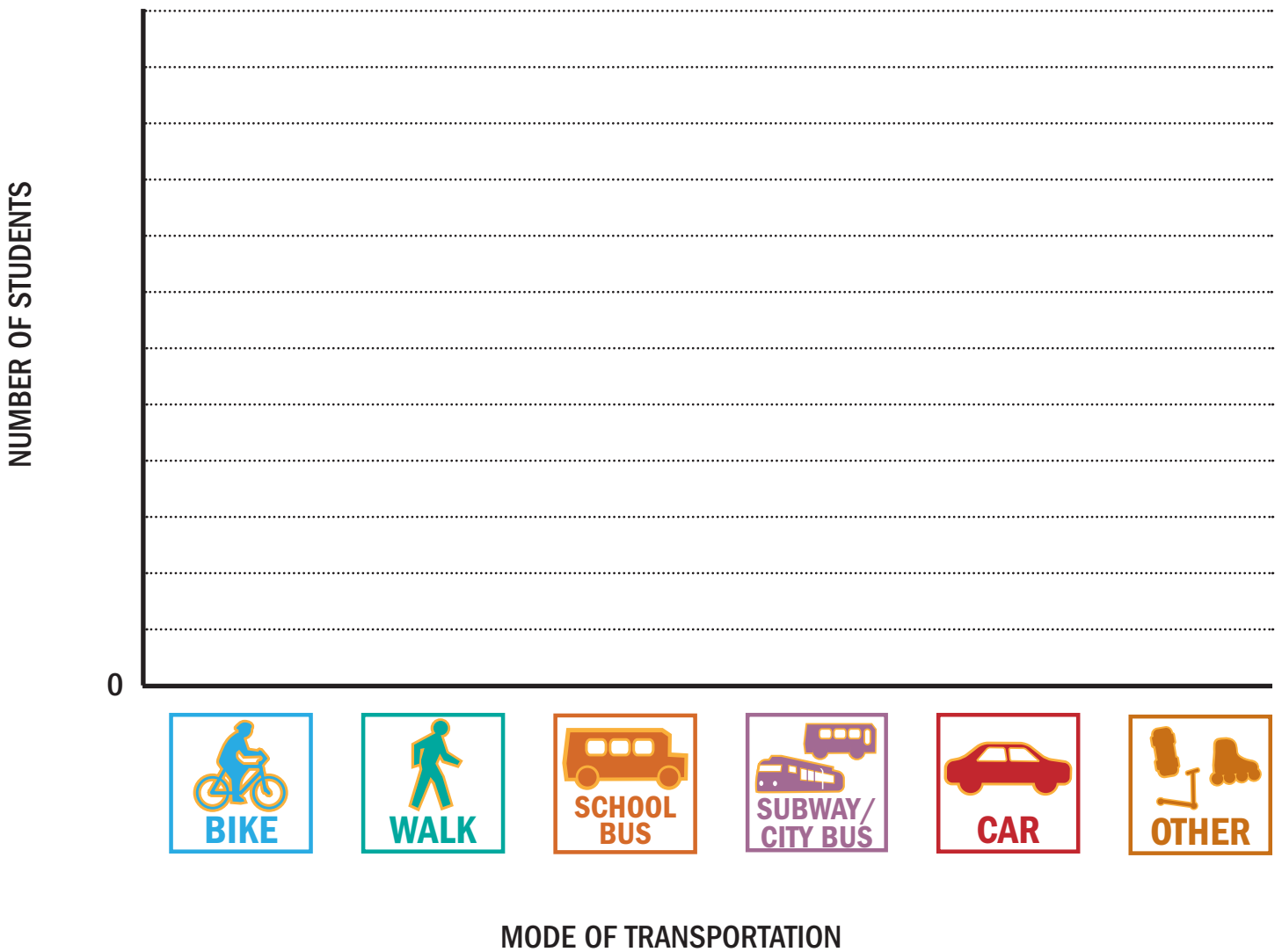
- Rulers
- Colored markers or pencils for the graph

materials

- Step 1: Who's Walking Here?
- Step 2: Understanding the Numbers
- Step 3: Sharing your Message

Bar Graph: Total Numbers

Determine the total amount of students in each category by adding up the numbers from all three days you took data. Figure out what increment you are going to use for this graph before you start.



- Step 1: Who's Walking Here?
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Bar Graph: Average Per Mode

1. First, calculate the average for each mode of transportation, adding up the numbers and dividing by 3 (the number of days that you took data.)


DAY 1

+ DAY 2

DAY 3

= ÷ 3 =

average bike riders




DAY 1

+ DAY 2

DAY 3

= ÷ 3 =

average walkers




DAY 1

+ DAY 2

DAY 3

= ÷ 3 =

average public bus riders




DAY 1

+ DAY 2

DAY 3

= ÷ 3 =

average school bus riders




DAY 1

+ DAY 2

DAY 3

= ÷ 3 =

average car riders




DAY 1

+ DAY 2

DAY 3

= ÷ 3 =

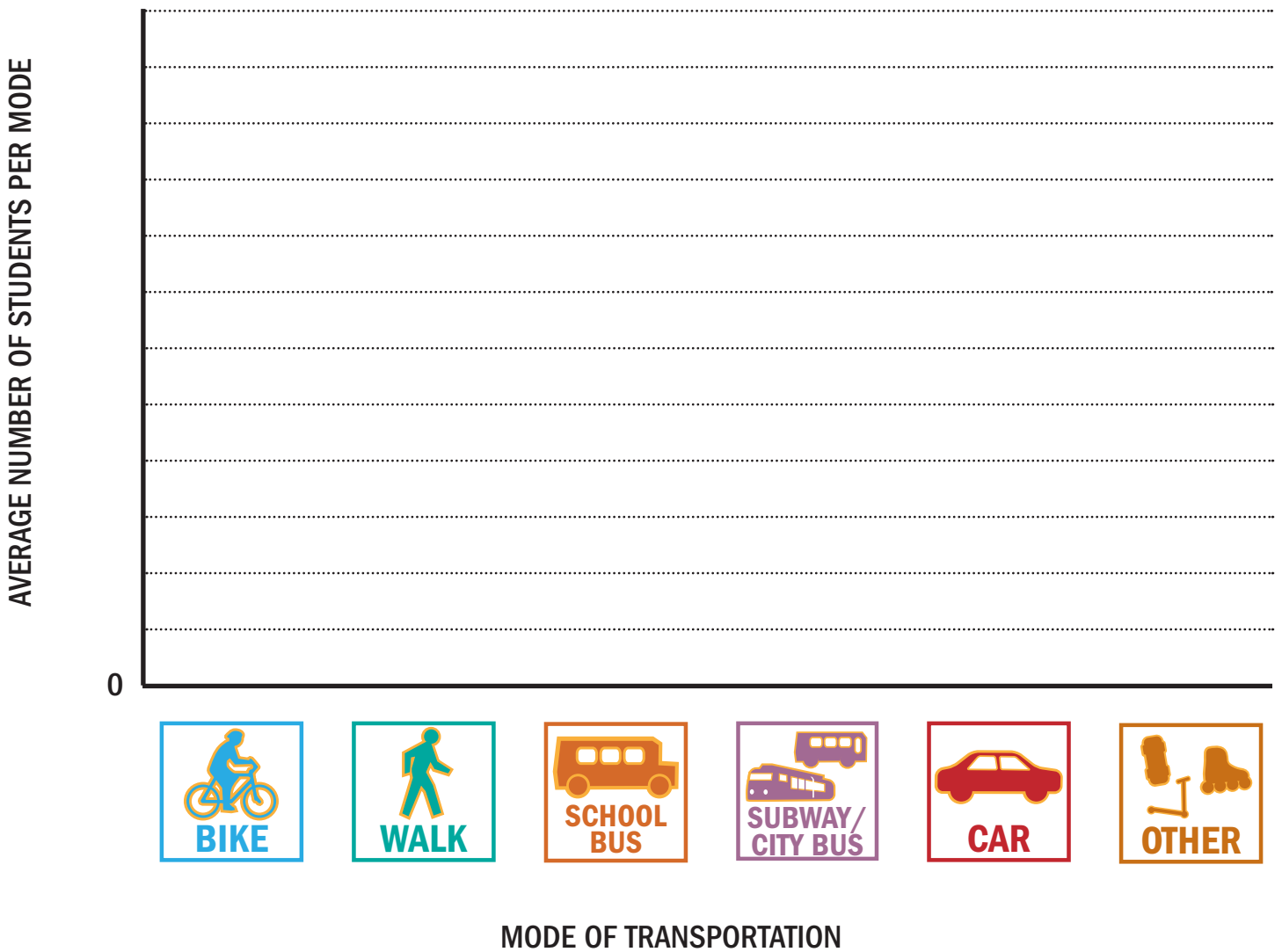
average other mode



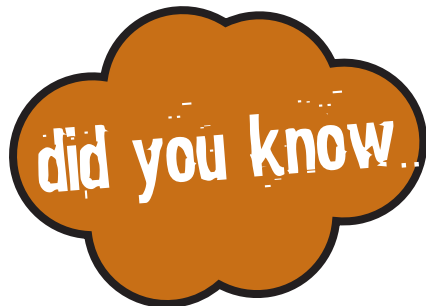
- Step 1: Who's Walking Here?
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Bar Graph: Average Per Mode

2. Fill out the bar graph below using the average number of students per mode on the Y-axis. Figure out what increment you are going to use for this graph before you start.



Fun Facts About Getting Around the City



- About 8 in 10 kids walk to school each day in New York (if we count walking from the subway or bus stop nearby)?
- In the rest of America, only about 13 percent of students walk to school each day?
- Out of the five boroughs, the Bronx has the most kids who walk – 9 out of 10 – and Staten Island has the fewest?
- Getting to work, only 23 percent of New Yorkers drive; the rest take public transit, walk, or bike?

THAT'S ABOUT 1 IN 10

ARE YOU SURPRISED BY THIS FACT?!



about the environment

- New York is considered one of the greenest cities in the country because so many people use walking, cycling, the subway, and buses to get around town.
- Still - NYC drivers put 20 % of the CO₂ in the air.
- This CO₂ and the little particles that cars put out help to create climate change.
- Walking or biking produces NO pollution.



walking and your health

Walking regularly (3 hours a week—or 30 minutes a day) is great because...

- It's one of your body's most natural forms of exercise.
- It doesn't require practice.
- It improves your mood.
- It keeps you strong and fit.

Resources

Union of Concerned Scientists, "Cars, Trucks, & Air Pollution"
Streetswiki, "New York City Vehicle Ownership"
Planetizen, "Removing Cars to Promote Public Space"
Drum Major Institute, "Reclaiming our Public Space for People, Not Cars"
Quinnipac University Polling Institute Poll, July 29, 2009,
"New York City Voters Like Car-Free Times Square"
Transportation Alternatives, "Rolling Carbon"
Environmental Defense Fund, "Transportation"
The Mayo Clinic, "Walking for Fitness"
Sustain Lane, "US City Rankings"