

# Data: A Window Into a Distracting World

Dig into the data on distracted walking and driving with a student-driven inquiry project.



## Objective

Students will use data from a random sample to draw inferences about a population and communicate findings using charts, tables, or graphics.

## Standards

### CCSS ELA, W.2.A

Gr. 6–8: Introduce a topic; organize ideas, concepts, and information using graphics and multimedia.

### CCSS Math, S.P.A.1

Gr. 6: Recognize a statistical question as anticipating variability  
Gr. 7: Representative data samples  
Gr. 8: Scatter plots

## Time

60–75 minutes over several class periods

## Materials

Dive Into Data activity sheet



**1 Read** the following statements aloud, and ask whether they're true or false:

- One out of every 10 crashes in the United States is caused by texting and driving. (*False—it's 1 in 4.*)
- People checking their phones while waiting at a crosswalk are four times more likely to step into the street without looking both ways. (*True.*)
- As long as a driver keeps their eyes on the road, they're not distracted. (*False—any activity not related to driving is a distraction: talking, eating, checking your hair in the mirror, etc.*)

**2 Ask** students where they think facts and statistics like this come from. How are they collected? Explain that driving statistics are collected from various sources such as police reports, monitoring projects, polls, and surveys.

**3 Challenge** students to define the term *statistics*. Guide them toward a definition that includes: gathering large amounts of numerical data for analysis to see if trends or patterns emerge.

**4 Direct** them to think about their town or neighborhood. What kinds of questions related to distracted walking and driving would they like to find answers to? How could they go about collecting that information?

**5 Brainstorm** a list of questions they could ask on the board. Example: What percentage of students are walking distractedly after school? What do people in their neighborhood or town believe is

the riskiest distracted-driving behavior, and how do those beliefs compare with reality? How do people's distracted walking or driving habits change after they learn new info about the problem?

**6 Have** students brainstorm ways they might find answers to their questions (e.g., conduct in-person interviews by canvassing neighbors, interview family and community members to gather their opinions, design a local monitoring project, etc.).

**7 Distribute** the Dive Into Data activity sheet. Have students:

- select one or more questions for inquiry
- plan a methodology to find answers
- conference with you about their plan (to ensure there are no safety concerns)
- present their findings in a visual/graphical way

**8 Post** your students' completed graphs, charts, tables, and infographics around the room and invite peers to review and discuss.

## Extension

Create connections with your current math unit by encouraging students to express findings as percentages, ratios, by distribution, or as bivariate categorical data.

Name \_\_\_\_\_

# Dive Into Data

Follow the steps in this planner to design your investigation of distracted walking and driving in your town. Then create a graphic to show the results!

**1. Find Focus.** Brainstorm some questions you would like to know the answer to.

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**2. Pick a Question.** Now, choose one question from your list that you want to research.

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**3. Map Your Method.** How will you collect information? (Example: a survey or poll, a set of interview questions, observe and take notes, etc.) Describe how you plan to find an answer.

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**4. Design.** Use the back of the page to plan out how you will collect your data, including the specific question(s) you will ask or the behavior(s) you will tally.

**5. Discuss.** Meet with your teacher about your plan. Record their advice and make suggested changes.

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**6. Do the Research.** Implement your plan and collect the data.

**7. Analyze.** Synthesize and organize your data.

**8. Share.** Create a graph, chart, table, or infographic to present your findings in a visual way.