every day when you get home, is your e-mail in-box jammed—and not just with spam? If you sent out more e-mails, would you get more? What if you sent fewer? You can examine these connections with a scatterplot.

A scatterplot is a graph that lets you represent two sets of data and compare them to see if there is a clear relationship. For example, a scatterplot might show the relationship between the amount of money Gary earned shoveling snow each week and the amount of money he spent at the mall each week.
In general, on the scatterplot below, as the numbers along the x (horizontal) axis increase, so do the numbers along the y (vertical) axis. So, the more Gary earned, the more he spent. If you were to draw a line through the center of the data, it would slant upward, showing a positive relationship.

But what if Gary actually spent less of his money in weeks when he made more money? The line would slant down, showing a negative relationship.

There's one more possibility: What if Gary's spending had nothing to do with how much money he made in a given week? The points might be "scattered" all over the graph. No clear line could be drawn through the data, so there would be no relationship.

Now, make a scatterplot with some of your classmates to see if the number of e-mails sent affects the number received. You have some data to gather—so scatter!

-by Carli Entin

1. Look at your group's scatterplot. Could a straight line be drawn in between most of the dots? If so, would the line slant up to the right, or down? (Try it!)

2. Based on your answer to #1, does your scatterplot suggest a positive, a negative, or no relationship?

3. Based on your answer to #2, write a sentence explaining the relationship between e-mails sent and e-mails received, as shown by your group's scatterplot.

4. Finally, compare your group's scatterplot with those made by other groups. Do they seem to show similar relationships?

THINK ABOUT IT

What are some other kinds of data you could compare on a scatterplot?