## What kind of question? What kind of graph?

Data Literacy Project

**Background**: Scientific investigations usually begin with a question. Scientists then look for evidence (data) to try and answer the question. After making measurements and collecting data, they display their data in a graph for a visual picture of what story the data tells about the question. *Deciding what kind of graph to make* depends on *what kind of question* is being asked.

1. Which of the following best describes each question in the list below?
2. It asks about how a measure **varies within a group**
3. It asks about how **two or more groups compare**, based on a single variable, or measure
4. It asks about the **correlation between two numeric variables**
5. It asks about how something **changes through time**
6. None of the above describes the question very well
7. Use the graph choice chart to decide what kind of graph would be best to use.

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1. How has the population of Maine changed in the last 10 years?
2. Do rockets go higher if they have more water added to them?
3. Who uses cell phones more during the day, boys or girls?
4. How many miles do students in our class commute to school?
5. Has the surface temperature of Penobscot Bay during July been getting warmer over the last 12 years?
6. Is smoking rate for a state related to the state’s median income? (Smoking rate is often given as the number of smokers per 100,000 in the state’s population).
7. How tall is the tallest building in the world?
8. How many seeds are typically found in green peppers?
9. Which group of plants grew the most, the ones in the window, or the ones in the closet?