Population Sampling: Fish

Final Assignment Instructions

In this lesson, you have learned how sampling can help you estimate the size of a population in a hard-to-measure environment, like a lake. You will now write an essay that shares what you have learned. You will need a printout of your notes.

- **Choose** one of the topics below and **write** an essay.
- **Organize** your response so that it includes at least three supporting details that you have learned from the reading passage, video(s), and other materials in this lesson.
- **Use** at least three vocabulary words (or a form of the words) as part of your supporting details. For example, for the word *jump*, you could use *jumps*, *jumped*, or *jumping*.

Essay Topics

1. For four years, a group of biologists used sampling surveys to gather data about the walleye population in a lake. Here is the number of walleye that they trapped during the survey:

   2008: 17 walleye

   2009: 16 walleye

   2010: 8 walleye

   2011: 12 walleye

   Pretend you are one of the biologists. What might you think about the health of the walleye population in the lake? In your response, discuss:

   a) what these results might mean;

   b) why they are not exact; and

   c) why population surveys such as this one are important.

2. Janelle is interested in finding out how long it takes people to get to school every day. However, her high school has over 1,000 students! She does not have time to interview everyone but still wants to come up with a representative sample. She asks two friends how she should get the information she wants.

   Elon says: “You should just ask 30 people when they got off the bus in the morning. That way you can get a lot of data quickly.”

   Fay says: “I think you should ask five random people every hour during the school day. That will give you data from about 30 people, and not all of them will have taken the bus to school.”

a) Who suggested the better method?

b) Why do you think it is better?

c) Design another type of sampling survey that you think is better than those offered by Elon and Fay.

Vocabulary Words

abundance

data

estimate

population

random

representative

sample