

## Pre-Quiz Answer Key

NOTE: Students will learn the answers to questions 1-4 during the course of the activity. Review their pre-activity answers to gauge their base level understanding of the subject matter.

1. How do our eyes see?  
Light reflects off objects, enters the eye through the lens, forms an image in the eye, and the brain interprets this in the visual cortex.
2. How do scientists “see” how our brains work?  
By looking at how the brain responds to controlled stimulation. Example responses might be the frequency or reliability of the firing of individual cells.
3. Why are graphs useful for interpreting scientific data? Give one example of how scientists or engineers use graphs for interpreting data.  
Visualization, show relationships, makes trends and patterns easier to see. Often data in aggregate simplifies the image of any structure and reduces the distraction of noise.
4. What is a histogram?  
A histogram is a graph that shows the distribution of events. Expect that students might say “bar graph,” “column graph,” or a graph for counting events.
5. What gets you excited about science?  
Opinion; any answers acceptable.
6. Are you interested in a career in science or engineering? Why?  
Opinion; any answers acceptable.