e-SMARTkids

ANSWER KEY

The Body Electric

1. The wire from Johnny Ray's head carries electrical impulses from an electrode in his brain directly to the computer.

2. Another possible use for this discovery is that other people who have had strokes or who have paralysis could use it to perform computer-assisted tasks.

3. The difference between a proton and an electron is that protons are positively charged, while electrons are negatively charged.

4. The way that electrons carry electricity is that when they get "bumped" from atom to atom in a conductor, electric current flows through that conductor.

5. Volts are a measure of the pressure of electricity, like the pressure of water in a garden hose. Amps are a measure of the amount of electricity, like the amount of water flowing through a hose. Watts are a measure of the work that can be done by electricity per second. Watts are a function of both the volts and the amps, just like the work you can do with a stream of water from a hose depends on both the amount of water coming out of the hose and the pressure with which it comes out.

6. If you contact electricity from a household appliance, you could have a heart attack or muscle contractions that lock you to the source of electricity.

7. If you contact electricity from a power line, you are likely to suffer a fatal shock or fall.