

THE BODY ELECTRIC

ANSWER KEY

- 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.