Chapter 2 Keys to Success

What is matter? What are the more common elements used in biology?

What are the locations, masses and charges of the three subatomic particles?

How are the atomic number and mass calculated?

What are isotopes? What is the name for an unstable isotope? How does the atomic number change among isotopes?

What does the octet rule mean?

What are molecules and compounds? Explain what the chemical formula for glucose means.

How do ionic bonds form and what is their relative strength in biology.

How do covalent bonds form and what is their relative strength in biology. What does the covalent bond in water look like?

How do hydrogen bonds form and what is their relative strength in biology.

Describe the special chemical properties of water that make it biologically important?

How are acids and bases most easily defined in biology?

How does the pH scale work? What regions of the scale relate to acids, bases and neutral substances?

If we move from pH 3 to pH 6, quantify how much the acidity has changed.