

## Background chem for biologists

1. What are the four most abundant chemical elements in living things?
2. What are the three components of an atom, and what charge do they carry?
3. Briefly, what distinguishes an atom from a molecule?
4. What distinguishes ionic bonding from covalent bonding?
5. How many covalent bonds does carbon form? Why is this important for living things?
6. Define pH.
7. What is a buffer? Name one biological example of a buffer system.
8. What is an isotope? What type of isotope undergoes decay and what is produced?
9. Briefly define oxidation and reduction
10. What is the molarity of a glucose solution made by dissolving 60g of glucose in 500mL of water?