

Water Part I: Review

- How has the world's total water changed in the past 100 years? The past 1 million years? Explain.
- Explain how it might be possible that a molecule of water that you drank today once might have been swallowed by a dinosaur.
- Identify at least three properties of water.
- How are heterogeneous and homogeneous mixtures different?
- Classify each of the following as an element or compound
 - CO
 - HCl
 - NaHCO₃
 - I₂
 - Co
 - NO
- Look at the models below:

 - Which models represent elements?
 - Which models represent compounds?
- Name the elements and list the number of each atom indicated in the following substances:
 - Phosphoric acid, H₃PO₄, is used in soft drinks
 - Sodium hydroxide, NaOH, is found in drain cleaners
 - Sulfur dioxide, SO₂, is a gas released by volcanoes
- The USGS states that the average American uses 5000 L of water per day. This number is much greater than the numbers you calculated, why might that be?
- For each of the following elements, identify the number of protons or electrons that are needed for an electrically neutral atom.
 - Carbon: 6 protons ___ electrons
 - Lead: ___ protons 82 electrons
- Classify each of the following as an electrically neutral atom, cation or anion.
 - O²⁻
 - Cl
 - Hg²⁺
 - Li
 - Ag⁺
- Write the symbol and show the electrical charge (if any) on the following atoms or ions:
 - Hydrogen with 1 proton and 1 electron
 - Aluminum with 13 protons and 10 electrons
 - Chlorine with 17 protons and 18 electrons