

## Discussion Questions: **copy and complete**

1. You can tell the \_\_\_\_\_ from how dark the color is.
  2. If you add more solvent (water) the concentration becomes \_\_\_\_\_ or \_\_\_\_\_.
  3. The solvent was \_\_\_\_\_. The solute was \_\_\_\_\_. Together they made a \_\_\_\_\_.
  4. When you add more water you are \_\_\_\_\_ing the solution
  5. The cup that first appeared colorless was # \_\_\_\_\_. That cup **DID/DIDN'T** still have food coloring in it.
  6. Its concentration is \_\_\_ % or \_\_\_ ppm. If the solute was poison, would it be safe to drink from that cup? Explain.
  7. On your chart, label the cup that has a concentration of one part per million with "1 ppm" and the cup with a concentration of one part per billion with "1ppb."
- Which is the greater concentration, 1 ppm or 1 ppb?
8. Is it possible for chemicals to be in drinking water that cannot be detected by the human eye or taste buds?
  9. Name one helpful chemical that is put into your drinking water intentionally by the water company. Why is this chemical used?
  10. What can you do as an individual to make certain that harmful chemicals do not pollute your local drinking water?
  11. Name one benefit to allowing companies to get rid of their chemical waste by diluting it into lakes and streams. What is the disadvantage to this practice?

1. Write a sentence that uses the words: SOLVENT, SOLUTION, DISSOLVE, SOLUTE.

2. Draw solvent molecules as pencil dots and solute (red food coloring) molecules as red dots to show the relative concentrations. Draw an arrow next to the words to show the direction of increasing concentration and dilution.



1.

4

8

CONCENTRATION  
DILUTION