

WS 7.2 Formation of Solutions

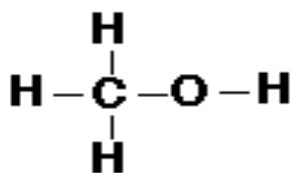
1. Describe the u-tube demonstration that was shown in class. Include a diagram. Make an educated guess as to how it was set up. Be specific!!

2. Does oil dissolve in water? Explain.

3. Will I₂ solid dissolve in water? Explain.

4. Will nitrogen gas dissolve in helium gas? Explain (hint, see reference sheet).

5. Below is the structure for methanol (race car fuel). It is a covalent molecule. Can it do hydrogen bonding? _____ Draw 2 water molecules & show the bonds they form to the methanol.



6. Describe in detail how KCl (an ionic substance) dissolves in water. Use diagrams of **hydration spheres**, like we did in our notes:

7. If **sugar**, **oil**, **helium**, **gasoline**, **water** and **oxygen** were all placed together in the same flask, and the flask were shaken, you'd end up with 3 layers (2 chemicals in each). On the lines below, label where each component would be in each of the 3 layers:

