

<b>CHAPTER 2</b>	<b>Water Question and Answer Activity Answer Key</b>	<b>BLM 2.1.5A</b>
<b>ANSWER KEY</b>		

1. Hydrogen bonding enables water to dissolve a wide variety of substances. *True*
  
2. Liquid water is less dense than ice because hydrogen bonds hold molecules apart in an open crystalline structure in this phase. *False*  
*Ice is less dense than liquid water because hydrogen bonds hold molecules apart in an open crystalline structure in this phase.*
  
3. Water is most dense at 0 °C. *False*  
*Water is most dense at 4 °C.*
  
4. Cohesion refers to the attraction water molecules have for each other. *True*  
 Adhesion refers to the attraction water molecules have for molecules of other substances.
  
5. Water has a low heat capacity and thus requires large amounts of heat to effect a small change in temperature. *False*  
*Water has a high heat capacity and thus requires large amounts of heat to effect a small change in temperature.*
  
6. A hydrogen bond occurs between two hydrogen atoms on the same water molecule. *False*  
*A hydrogen bond occurs between a hydrogen atom and an oxygen atom on different water molecules.*
  
7. Metabolic water is generated by metabolic reactions. *True*
  
8. Drought decreases plant productivity because plants close their stomata to reduce water loss and can no longer take in carbon dioxide. *True*
  
9. The hydrologic cycle does not play a role in biogeochemical cycles. *False*  
*It plays a central role.*
  
10. Unlike carbon dioxide, water vapour is not a greenhouse gas. *False*  
*Water vapour is a greenhouse gas.*