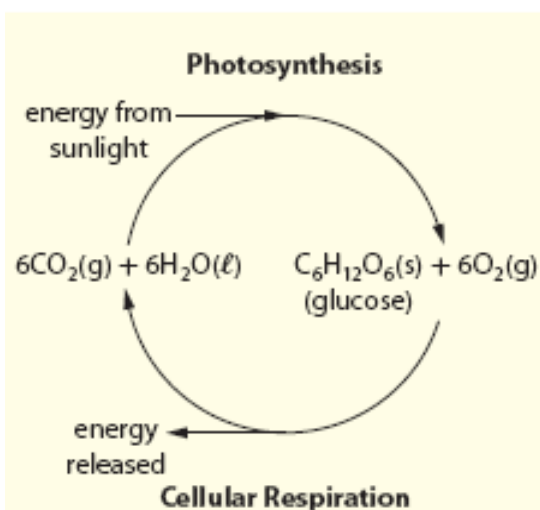


CHAPTER 1
OVERHEAD
**The Chemical Reactions for
 Photosynthesis and Cellular Respiration**
BLM 1.1.2

cellular respiration	$\text{C}_6\text{H}_{12}\text{O}_6(\text{s}) + 6\text{O}_2(\text{g}) \rightarrow 6\text{CO}_2(\text{g}) + 6\text{H}_2\text{O}(\ell) + \text{energy}$ <p>carbohydrates + oxygen → carbon dioxide + water + energy (sugars and starches)</p>
photosynthesis	$6\text{CO}_2(\text{g}) + 6\text{H}_2\text{O}(\ell) + \text{light energy} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6(\text{s}) + 6\text{O}_2(\text{g})$ <p>carbon dioxide + water + light energy → carbohydrates + oxygen (sugars and starches)</p>



Although the processes are very different, the overall equations for photosynthesis and cellular respiration are complementary.