

## Photosynthesis: Pre and Post Assessment

### Pre-Assessment

1. Which of the following are products of photosynthesis?  
a. carbon dioxide   b. water   c. DNA   d. oxygen   e. both water and carbon dioxide
2. Which of the following are inputs for photosynthesis?  
a. carbon dioxide   b. water   c. DNA   d. oxygen   e. both water and carbon dioxide
3. Photosynthesis takes place in   a. the cytoplasm   b. central vacuole   c. nucleus   d. chloroplast
4. In today's activity you will be measuring   a. oxygen evolution in elodea   b. oxygen evolution in spinach   c. pigment extraction from oranges   d. starch identification from potato

### Post-assessment

1. In variegated plants, starch was present  
a. throughout the leaf   b. only where the leaf was green   c. where ever the leaf was colored
2. The white areas of variegated leaves showed evidence of   a. carbon dioxide   b. starch  
c. oxygen   d. chloroplasts   e. none of these
3. Under which condition did starch disks float least or were slowest to rise   a. benchtop light   b. green light   c. red and blue light   d. white light
4. Why was sodium bicarbonate used in the experiment?   A. as a buffer   b. as a source of carbon dioxide   c. as a source of oxygen   d. there is no specific reason
5. Why did the spinach leaf disks float?   A. As carbon dioxide is removed the leaves became less dense and floated.   B. As carbon dioxide accumulated the leaves became less dense and floated.   C. As oxygen is removed the leaves became less dense and floated.   D. As oxygen accumulated the leaves became less dense and floated.
6. Which pigment was most hydrophobic?   A. chlorophyll a   b. chlorophyll b   c. beta-carotene  
d. xanthophyll   e. anthocyanin
7. Which pigment was least hydrophobic?   A. chlorophyll a   b. chlorophyll b   c. beta-carotene  
d. xanthophyll   e. anthocyanin