

## Photosynthesis Children's Magazine

*CA Standard: If, Students know usable energy is captured from sunlight by chloroplasts and is stored through the synthesis of sugar from carbon dioxide*

**Directions:** You will create a children's magazine (elementary age reading level) explaining the process of photosynthesis. **All work is to be hand done.** Color, picture, and writing required on each page.

**Each page is worth 5 points.**

**Cover Page:** A title of the magazine, your name, date, period, & class

### **Page 1: Introduction**

Write a simple explanation of photosynthesis. Write the balanced chemical equation of photosynthesis.

### **Page 2: News story**

Create your own story to make children enjoy the topic of photosynthesis. Be creative with a story, but stay on the topic of plants and photosynthesis. For example, explain how you were shrunk to go inside a leaf and describe what you see is taking place around you. Explain what would happen if there were no plants for photosynthesis to occur. You decide on the topic and create a story about it.

### **Page 3: Cartoon/comic**

Create a comic strip or cartoon about plants and photosynthesis. Make it fun.

### **Page 4: Light and Pigments**

Explain what pigments are. Show and explain how different pigments absorb different light waves. (ROY G BIV) Show the graph on pg. 207

### **Page 5: Trees/Plants**

Explain that plants are autotrophs & absorb  $H_2O$  and  $CO_2$ . Show  $H_2O$  and  $CO_2$  going into a tree/plant.

### **Page 6: Individual Leaf**

Explain the location and function of chloroplasts in a leaf. Explain why chloroplasts are green?

### **Page 7: Light-Dependent Reaction & Calvin Cycle**

Draw a large chloroplast. Label the thylakoid membrane and stroma. Explain how  $H_2O$  and sunlight make energy (ATP) and release  $O_2$ . Explain how  $CO_2$  is used to make glucose. Draw the picture on page 209 to help explain this.

### **Page 8: What Affects Photosynthesis?**

Explain how water, temperature, & light intensity affect the rate of photosynthesis. Use at least one graph.

**Extra credit given for:** pop-up book, obvious extra time and effort, etc.