

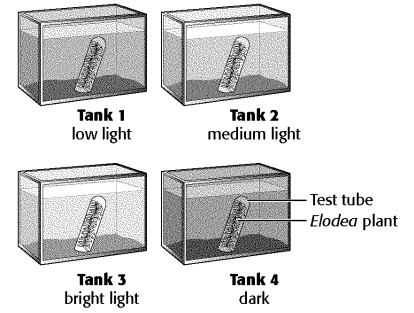


## Practical Application

1. Amy wants to test the hypothesis that the rate of photosynthesis is directly related to the light level to which plants are exposed. She has chosen the aquatic plant *Elodea* as her study organism. In her experimental design, she has four different tanks in which she will place *Elodea* plants inside an inverted test tube. She plans to estimate the relative rate of photosynthesis by measuring the amount of oxygen produced by plants placed under different light levels.

Amy plans to place tank 3 next to a window in the classroom. She plans to place tank 2 ten feet away from the window. She plans to place tank 1 twenty feet away from the window. She plans to place tank 4 in the classroom's refrigerator, because it is the only place she can find that is dark.

a. What is wrong with the design of Amy's experiment?



b. What could Amy change in her experimental design to make it a better experiment?