

Analogy baking a cake essay



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Step 1: gather the ingredients such as water, flour, baking powder, sugar and chocolate icing. The ingredients represent each products that the cycle of photosynthesis need. Such as water - which is use in the light dependent reaction when the molecules splits and gives off oxygen. Step 2: Preheat the oven at 375 degrees and that symbolizes the energy coming from the sun. Step 3: mix the flour, baking powder and sugar together. The Analogy for sugar is the electron coming to photosystem II.

Step 4: the flour, baking powder and sugar are now mixed with water and milk. And placed on the pan and put on the oven. The oven can symbolize the electron acceptor in the light dependent reactions. Step 5: As the cake raises and get bigger and fluffier it represents how the energy moves along to the electron transport system to photosystem I. Step 6: when the cake is cooked it is now ready to be decorated which can represent the cycle of chemiosmosis. Step 7: As the cake cools down the heat is transferred to the air. It is an Analogy for the hydrogen ions moving from stroma to inner space of thylakoid.

Step 8: when its all cooled down it is ready to be decorated with the chocolate icing and is now spread all over the cake that could represent the transfer of the H^+ across the membrane. Step 9: the cake is all done and ready to be put in the fridge. And that could represent the chemiosmosis product, which is ATP. Step 10: the cake that you made is now placed in the fridge which is an analogy for the ATP and NADPH produced in light reaction goes to the stroma of the chloroplast for the Calvin Cycle. The stroma of the chloroplast could represent the fridge. Step 11: The cake's frosting is now thick and settled in the cake and ready to eat. You slice the cake into 2 parts

just like the first step of the Calvin cycle carboxylation when it breaks down into 2 identical 3-carbon compounds.

Step 12: you eat the cake YUM! This is an analogy for the second cycle, which is reduction. When ATP converts the 3carbon compounds to a higher energy state. Reduction is literally an analogy of eating the cake, which means you are reducing the amount of cake you have! Step 13: After you ate that delicious cake you are regenerate! And that is the analogy by the last cycle of Calvin cycle, which is regeneration. When PGAL is converted back to RuBP to keep the Calvin cycle going.