Assign: 2
Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour:\_\_\_\_\_\_

**Photosynthesis – Day 2 – Calvin Cycle**

**Remember what it means to be a plant….**

* Need to produce all \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ necessary for growth
	+ Carbohydrates, lipids, proteins, nucleic acids
* Need to store \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ (ATP) produced from \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_
	+ In a more stable form
	+ That can be moved around plant
	+ Saved for a rainy day

**Light Reactions**

* Convert \_\_\_\_\_\_\_\_\_\_ every to \_\_\_\_\_\_\_\_\_\_\_\_ energy
	+ ATP 🡪 \_\_\_\_\_\_\_\_\_\_\_
	+ NADPH 🡪 \_\_\_\_\_\_\_\_\_\_\_ power
* What can we do now?
* Build stuff!!
* Photo\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**What is the goal?**

* Want to make\_\_\_\_\_\_\_\_\_\_\_\_\_ (glucose)
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Draw the picture below showing carbon dioxide converting to glucose with the help of NADPH.

**Calvin Cycle = “\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”**

* \_\_\_\_\_\_ is going to be converted into \_\_\_\_\_\_\_\_\_\_\_\_\_ during the \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_
* This is often referred to as the “Dark Reactions”
	+ Calling it the “Dark Reactions” is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ It doesn’t only happen in the dark, but rather in the \_\_\_\_\_\_\_\_ AND \_\_\_\_\_\_\_\_!
		- Remember \_\_\_\_\_\_\_\_\_\_\_\_ reactions can only happen in the \_\_\_\_\_\_\_\_\_\_\_!

**From Light reactions to Calvin cycle**

* Calvin cycle
	+ Takes place in the chloroplast \_\_\_\_\_\_\_\_\_\_\_\_ (which is like the cytoplasm of the chloroplast)
* Need \_\_\_\_\_\_\_\_\_\_\_\_ of light reactions to drive \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the Calvin cycle
	+ \_\_\_\_\_\_\_
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_

**Calvin Cycle Summary**

* Consumed (\_\_\_\_\_\_\_\_\_) \_\_\_\_\_\_\_\_\_
* Produced (\_\_\_\_\_\_\_\_\_) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Regenerated (\_\_\_\_\_\_\_\_\_\_\_\_\_\_) \_\_\_\_\_\_\_\_
* Regenerated \_\_\_\_\_\_\_\_\_\_\_

**Photosynthesis Summary – Concept Map**

