**Concept Map and Share: Photosynthesis**

In this activity you will be divided into the LDR group and the Calvin group. You will be given important words to use in creating a concept map that illustrates the objective below.

**Explanation of the Activity (5 minutes)**

* Read activity thoroughly.
* You may use notes to make your map.

**Think - Using Concept Map (10 minutes)**

* You will construct your map by using shapes for the words given, arrows to show connections, and words/phrases between shapes that explain the connection.
* You must focus on mapping the words as they relate to the question given.
* You must be able to explain your map to another person.

**Pair (10 Minutes)**

* Pair with another person from your concept group, share maps and discuss any changes you might make.
* Revise your map if you both agree. Your maps do not have to be the same. Do not copy another person’s map.

**Share (20 Minutes)**

* You will each share your concept maps one at a time. Each person gets 5 minutes maximum to share.
  + Person Sharing: You must explain the scheme of your concept map to your partner. You must also explain how it explains the question given.
  + Person Listening: You will listen and observe the other person’s map as they go through it. You will use the feedback sheet to evaluate the map and give 2 pieces of constructive feedback and one 1 kudos.
* After your sharing, you can use the remaining time to lay your concept maps side by side and talk about the following things:
  + How can the maps be revised?
  + Where is each map happening?
  + How do the maps connect?
  + What questions do you still have?

**Revision (10 minutes)**

* This final period of time is to be used to revise your map.
* You may ask questions while you revise and I will be available to help.

**Think – Pair – Share Questions**

**LDR Group Question:**

* How is the radiation energy from sunlight captured and changed into a useable form for the Calvin Cycle?

**Calvin Group Question:**

* How is the potential energy from the LDR and carbon dioxide changed into a useable form of energy for the plant cell?

**LDR Map Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

SUNLIGHT ELECTRONS PHOTOLYSIS NADP+ REDUCTASE

WATER ATP NADP(+/H) PROTON ATP SYNTHASE

**Calvin Map Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

SUGAR RUBISCO ORGANIC COMPOUNDS OXYGEN FIXATION

CARBON DIOXIDE REDUCTION ATP NADPH REGENERATION G3P

**Peer Evaluation Sheet**

Name of Presenter: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name of Listener: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Circle The Map Type of the Presenter: LDR Calvin

**Feedback:**

First Constructive Feedback (way they could improve):

Second Constructive Feedback (way they could improve):

Kudos! (something done well on their map):