**Station 1: Transport Data**

1. Pick up the handout of cell transport data and use the “Talk to the Text” strategy to understand the data. Fill in topics for discussion under each graphic.
2. Answer the analysis questions for Graphics 2 and 5

**Station 2: Cell Organelles - Who am I haikus?**

A haiku is a Japanese poem that has three lines. Each line has a specific number of syllables- Five, Seven, Five. Usually haikus are written about something in nature.

Read these Cell Organelle haikus. Try to determine what organelle is described in the haiku. Write the organelle on your review stations sheet.

**Haiku A Haiku B**

Photosynthesis All eukaryotes

Sunshine to carbohydrates Glucose converts in all cells

Lean, green plant machine ATP for me!

**Who am I? Who am I?**

**Haiku C Haiku D**

Rectangle, box, cube Sometimes I float free

It is hip to be a SQUARE Polypeptides made on me

Structure and support See me? Tiny dots

**Who am I? Who am I?**

**Haiku E Haiku G**

Homeostasis Write your own Cell Organelle Haiku.

Like the bouncer at a club Read the haiku to your neighbor

Needed bilayer & see if they can name the organelle.

**Who am I?** Remember the format!

**Station 3: \*\*\*Throwback\*\*\* Station**

**Biochemical Families:**  Re-create this chart on your station paper. Complete the information!

|  |  |  |  |
| --- | --- | --- | --- |
| **Macromolecule** | **Building Block Molecule (subunit)** | **Atoms** | **Uses**  |
| Carbohydrate |  |  | Quick Energy |
|  |  |  |  |
|  | Amino Acid |  |  |
|  |  | C,H,O,N, P |  |

**Enzymes:**  Read the experimental design. Using what you know about enzymes, answer the thinking questions on your station sheet. Please use complete sentences.

A biologist prepared three flasks in a lab to test the activity of the enzyme **amylase**. **Amylase**  breaks down polysaccharides into monosaccharides. The three flasks each contain 5 milliliters of **starch** in water. The biologist then added **amylase to two flasks and water to the third.** The experimental set-up is shown in the diagram below:

Add 5 drops of **Amylase** Add 5 drops of **Water** Add 5 drops of boiled **Amylase**

  

 4% Starch in Water 4% Starch in Water 4% Starch in Water

 **FLASK A FLASK B FLASK C**

1. pH and temperature can both affect enzyme activity. Which factor is being tested in this lab experiment?
2. Amylase breaks down starch into monosaccharides best at room temperature. At the end of the experiment, which flask would have the MOST simple sugars? Explain your answer.

 3. If amylase is optimal at room temperature, which flask would have DENATURED

 enzyme? Explain your answer.

**Station 4: Cell Types**

Complete the Prokaryotic coloring and questions.

**Station 5: Membrane Structure and Transport**

1. Review the Feynman technique that you learned in the last unit at <https://collegeinfogeek.com/feynman-technique/>
2. Using the technique and examples, create a review of plasma membrane structure.
3. Be sure to show the relationship between the structure of the plasma membrane and its function as it maintains homeostasis for the cell.