

## UNIT 2 - BASIC PRINCIPLES OF BODY CHEMISTRY

### ACTIVITY - Chemistry Work Stations

#### Instructions:

1. Cut out and mount on card stock each of the station questions below.
2. Divide students into 6 groups.
3. Have the students work in groups to locate the answers to the questions. They can use their text book or any other resource you may have.
4. Give each group approximately 15 minutes to find the answers to the questions at their station. Each student is to write the answers down individually. They don't need to write the question down if they include it in their answer. Remind the students to be thorough because these are their lecture notes.
5. At the end of the 15 minutes the students will rotate to the next station. Example: The students at table 1 move to table 2 and so on. The students on table 6 move to table 1.
6. Continue this process until all stations are complete.
7. Follow this activity up by
  1. Orally reviewing the main facts
  2. Giving a quiz.

*The other option is to do this activity as a Jigsaw by having each group become an expert on their station material and then follow the Jigsaw instruction sheet attached with the listening guide.*

#### Station 1: Inorganic compounds:

1. Define an inorganic compound. Include an example and three characteristics.
2. Why is water the universal solvent? Name the four properties of water.
3. Describe how the body utilizes water.
4. Identify the four most abundant elements in the body. Explain why each one is important in a living system.

#### Station 2: The pH scale - acids and bases

1. Define pH.
2. Describe what an acid and a base are.
3. Describe the pH scale.
4. Give the pH of a neutral, alkaline and acidic solution.
5. How is the pH of the body maintained?

**Station 3: Organic Compound- Carbohydrates**

1. List the functions of a carbohydrate
2. Describe the three types of carbohydrates and give an example of each.
3. Identify the major components of a carbohydrate.

**Station 4: Organic Compound - Lipids**

1. Identify the main characteristics of lipids.
2. List the two main components of fats.
3. Describe the three categories of lipids and distinguish between them.
4. Identify the functions of lipids.

**Station 5: Organic Compounds - Proteins**

1. List the main characteristics of proteins
2. Identify the components of a protein.
3. Describe the role protein plays in our living system.
4. Define enzyme and describe its role in our living system.

**Station 6: Organic Compounds- Nucleic Acids and ATP**

1. Describe the function of nucleic acids.
2. Identify the components of nucleic acid.
3. Identify the base pairing in nucleic acids.
4. State the function of ATP in our body.
5. Describe how energy is released in our body.