

# MIT Edgerton Center Protein Set Worksheet

Name \_\_\_\_\_

Date \_\_\_\_\_

Directions: Answer the questions using Protein Booklet 1: Introduction to Structure and Function.

1. What are the subunits of proteins called? \_\_\_\_\_

They are small molecules. Proteins are flexible chains made from these subunits.

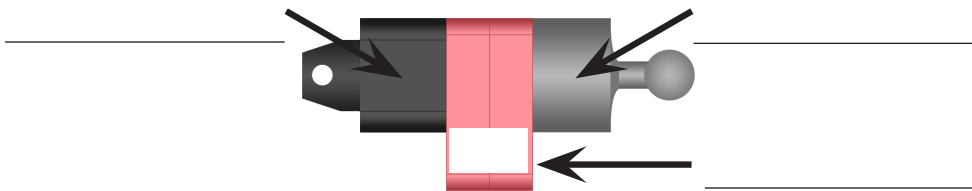
2. Explain how a person gets these subunits into their cells to make new proteins.

\_\_\_\_\_

\_\_\_\_\_

3. How many different amino acids are there? \_\_\_\_\_

4. Here is a model of an amino acid. Label the 3 parts of the molecule.



5. The amino acid above is pink (acidic). What is this amino acid's full name? \_\_\_\_\_

6. Write the abbreviation for the amino acid on the model above.

7. Is this pink amino acid hydrophobic or hydrophilic? \_\_\_\_\_

8. If a protein chain was surrounded by water, would you expect to find a pink amino acid in the middle of the folded protein? Or on the outside surface of the protein? Explain your thinking.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. Name 3 hydrophobic amino acids. \_\_\_\_\_

\_\_\_\_\_

10. Number the amino acids correctly in the diagram on the right.

Label the order of the amino acids in this short protein 1, 2, or 3.

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_