Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Assignment:\_\_\_\_\_\_\_

**Proteins: Multipurpose Molecules**

**Examples:**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Collagen, keratin
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Digestive enzyme in stomach
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Hormone that controls blood sugar levels

**Function:**

* Many, many functions
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - Signals from one body system to another
    - Insulin
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - Muscle
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - Protects against germs
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
    - Help chemical reactions

**Monomer** – Building Block = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* \_\_\_\_ different \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_

*Draw the basic monomer of a protein to the right:*

**Amino acid chains**

* Proteins
  + \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ chained into a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Each \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ is different

**For proteins: SHAPE matters!**

* Proteins \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_ into \_\_\_\_\_\_ shapes
* The \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ determines the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Different \_\_\_\_\_\_\_\_\_\_\_\_\_ = different \_\_\_\_\_\_\_\_\_\_\_
* Proteins do their jobs, because of their shape
* Unfolding a protein destroys its shape
  + Wrong shape = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Unfolding proteins = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Things that can effect a protein’s shape:
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_