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:
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	+ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_