**Station #2: Protein Synthesis Analogy Sheet:  Construction/ Candy Factory**

**Contruction/Protein Synthesis Analogy**

1. Blueprints \_\_\_\_ Nucleus
2. Supervisor \_\_\_\_ DNA
3. Trucks \_\_\_\_ Cytoplasm
4. Finished building \_\_\_\_ Ribosome
5. Concrete & Lumber \_\_\_\_ mRNA
6. Master plans \_\_\_\_ tRNA
7. Building site \_\_\_\_ Amino Acids
8. Architect’s vault \_\_\_\_ Protein

**Candy Factory/Protein Synthesis Analogy**

1. mRNA transcribed from DNA
2. mRNA exits through nuclear pore to cytoplasm/ribosomes
3. tRNA binds to amino acids
4. loaded tRNA bonds mRNA at ribosomes
5. polypeptide chain grows in response to mRNA codons
6. completed protein either used by cell or is packaged and exported

\_\_\_\_\_ candy assembly finished; workers eat some, rest is wrapped for shipment

\_\_\_\_\_ workers assemble ingredients at workstation

\_\_\_\_\_ messenger leaves office through door; goes to factory floor and finds workstations

\_\_\_\_\_ boss gives recipe to messenger

\_\_\_\_\_ workers pick up ingredients

\_\_\_\_\_ ingredients are combined according to recipe