Station Seven

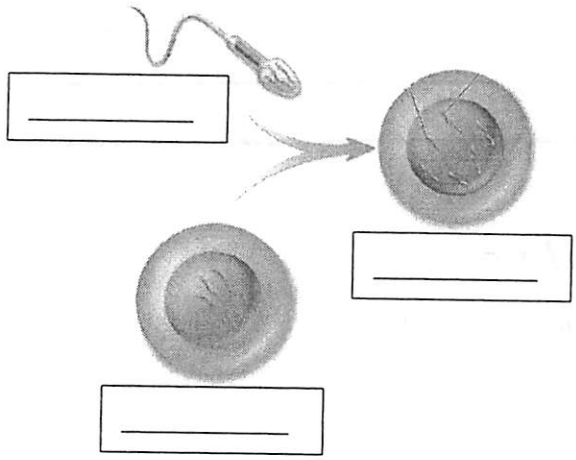
Directions: Read the information on the station diagrams and answer the questions below.

1. Looking at the "invitation," how many months ago was this party started? (Hint: How long does it take for a human to develop in utero?) _____

2. What are the female sex cells called? _____ Where are they created? _____

3. What are the male sex cells called? _____ Where are they created? _____

4. Label the diagram below.



When a sperm and egg join, the process is known as:

_____

5. How much genetic information comes from each parent? _____

6. What type of reproduction is it when two parents create an offspring? _____

NAME THE SYSTEM: _____

This system allows more organisms to be made and prevents extinction from occurring. The circle of life!

Station Eight

Directions: Match the cards then complete the information below.

Define-

Antibodies: _____

_____

Pathogen: _____

Antigen: _____

1. Can an antibody kill off more than one type of pathogen? What makes you say that? _____

_____

_____

_____

Challenge Questions

Why won't you get an illness that you have been immunized (gotten a shot) against?

_____

_____

NAME THE SYSTEM: _____

This system fights off foreign invaders.

Station Nine

Directions: Complete the demonstration then answer the questions below.

1. What happens to the sand/pebble mixture? _____

_____

2. What does the sand/pebbles represent? The colored water? _____

_____

3. Why is filtration an important part of this system? _____

_____

Challenge Question

Which organ filters the blood and removes wastes in your body? _____

NAME THE SYSTEM: _____

This system removes waste from cellular processes (metabolism) and filters the blood.

Station Ten

Directions: Observe the apples carefully then use the information at the station to complete the section below.

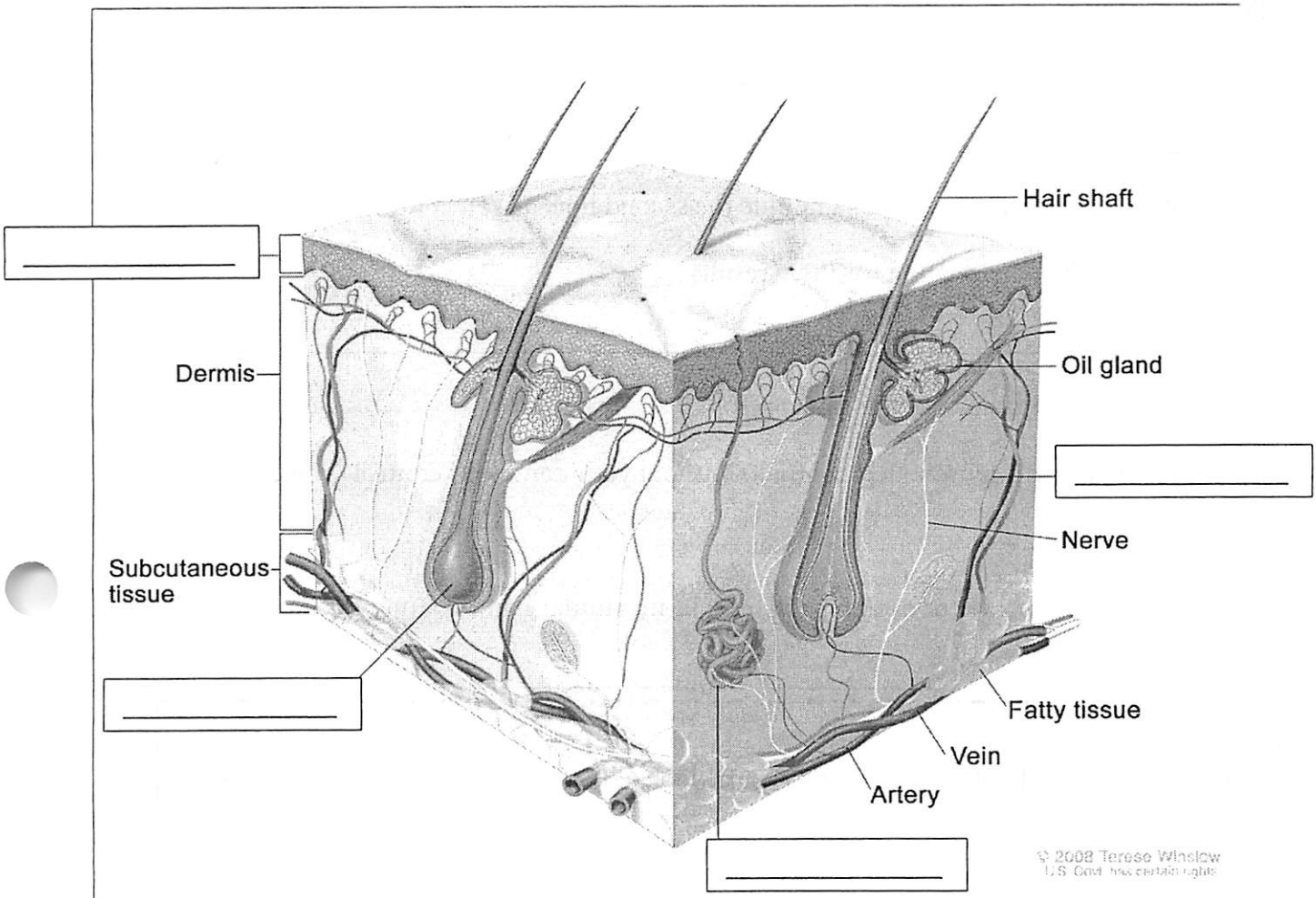
1. Did the apple with plastic wrap change color? _____

2. Did the apple without plastic wrap change color? _____

3. What organ does the plastic wrap represent? _____ This shows that this organ has the ability to: _____

4. If we didn't have this protective layering, for example a scrape or cut, what do you think would happen? _____

Label the missing parts below.



Looking at diagram two, how does this system work with the nervous system to cool you off if you get too hot? _____

_____

By maintaining a constant body temperature, this is an example of: _____

NAME THE SYSTEM: _____

This system is the body's first layer of defense against infection. It also regulates body temperature to maintain homeostasis and remove excretory waste.

Station Eleven

Directions: Complete the activity using the clothespins then record your data below.

1. First trial clothespin squeezes:_____
2. Second trial clothespin squeezes:_____
3. Some people are able to squeeze the clothespin more times in a minute than others. What is a possible reason why this happens?

   _____

   _____
4. Could you do as many squeezes in a minute the second time as you could the first time?_____
5. Provide a scientific explanation for these results. _____

   _____

_____ Muscle= a muscle you can control

_____ Muscle= a muscle that contracts without your conscious control (You can't control it.)

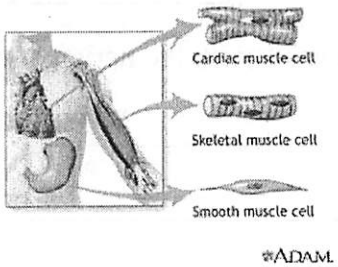
Give an example of an organ where each type of muscle, involuntary and voluntary, can be found.

_____

Challenge Question

Which never tires, tires slowly, tires quickly (Hint…look at the clothespin data to help you.)

_____

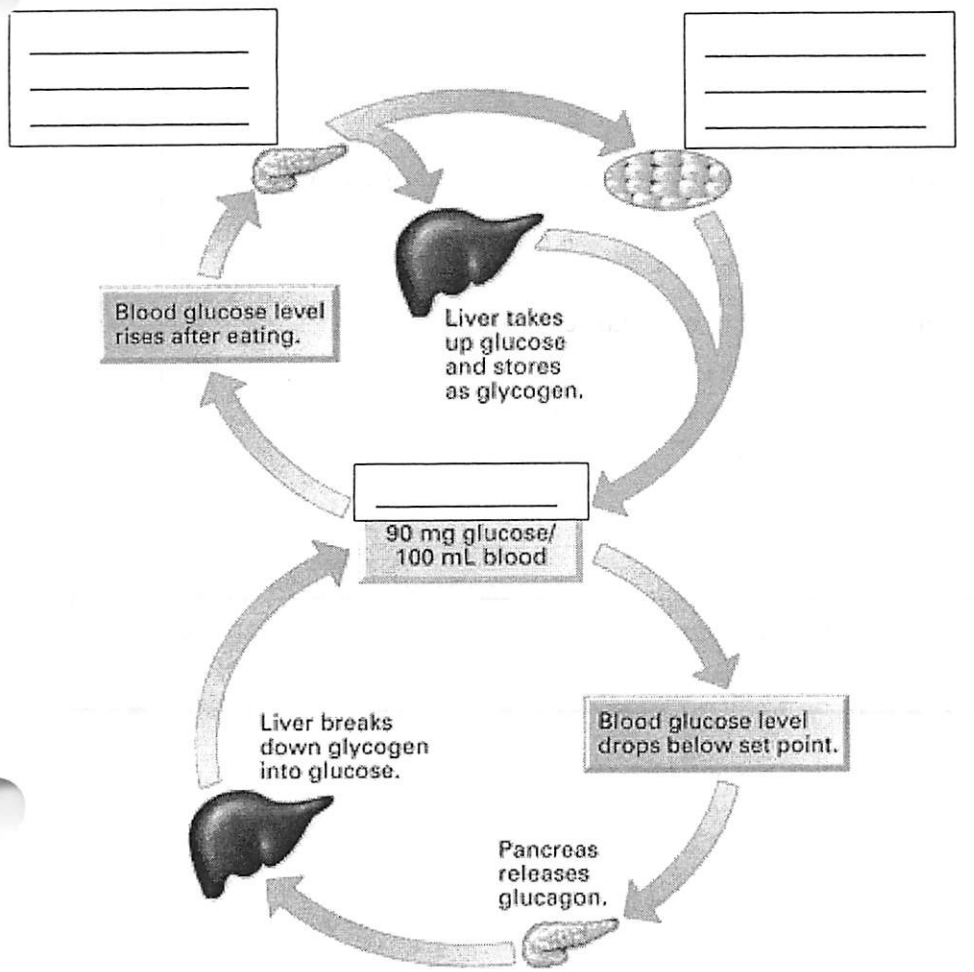


NAME THE SYSTEM: _____

This system allows you to move by contracting. Without it you couldn't jump, run or talk!

Station Twelve

Directions: Observe the diagram and then label the diagram and answer the questions below.



1. Insulin and glucagon are what type of chemicals? _____

2. These chemical messengers are created in organs known as: _____

3. What happens to your blood sugar/glucose levels when insulin is released? _____

_____

4. Use the textbook at your table to define negative feedback: _____

_____

_____

_____

5. How do insulin and glucagon work in opposition (against one another) to maintain homeostasis? ___

_____

_____

This is an example of _____ feedback.

Challenge Question

When insulin isn't produced and blood sugar levels are not maintained, what condition is the result? _____

How are hormones transported/delivered to their target organs?

_____

NAME THE SYSTEM: _____

This system regulates bodily activities with chemical messengers; but is much slower at it than the nervous system.