Human DNA Analysis – Lab Report

Geneticist *(Your name)*:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Source of DNA:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Amount of Sample:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Method of Recovery:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PROTOCOL** *(First, fill in the blanks based on the correct protocol, or procedure, listed in your handout. Next, follow the procedure.)*

1) Swish \_\_\_\_\_\_\_\_ tsp ( \_\_\_\_ mL) of the salt water from the small cup in your mouth vigorously for 30 seconds. Your goal is to slough as many cheek cells as possible. Your instructor will time you to make sure you have swished long enough.

2) Spit the water with \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ back into the small cup.

3) Pour this solution into a tube containing 1 teaspoon ( \_\_\_\_\_ mL ) of \_\_\_\_\_\_\_\_\_ solution.

4) Gently mix this solution for 2-3 minutes. Try to avoid creating too many \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The soap solution breaks the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that are made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - just like soap breaks down \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on your dishes!

5) Tilt the tube of soap solution/cells. Pour 2-3 teaspoons (10-15 ml) of ice cold alcohol (EtOH) down the side of the tube so that it forms a layer

**RESULTS**

Did you see your DNA?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**DISCUSSION**

1. Where did the DNA come from?

2. How does the soap help us to isolate the DNA?

3. How does the ethanol help us isolate the DNA?

4. Is this procedure similar to what forensic scientists do when extracting DNA?

*After you have finished the lab, paste it into your spiral by folding it in half and gluing the bottom, blank half onto the paper.*