**DNA Extraction Lab 2 Name: Per:**

**Background:**

Forensic Scientists often have to extract DNA for a very small sample. Sometimes, they only have a few cells to work with. Because of this you will be using Meat tenderized to remove the Proteins from Chromosomes, so you can see it better. In this lab, you will collect some of your own cheek cells and extract and view **your own DNA.** You will use and modify the procedure from part 1 to extract DNA from a much smaller sample.

Essential questions before you start.

1. What was the purpose of the detergent solution in Part 1?

2. What happened when you added when you Alcohol (ethanol) to your strawberry sample?

3. Why is it important that the liquids added to the sample are cold?

Available materials:

1% salt soution test tube

Dixie cup toothpick

D25% detergent solution rubbing alcohol

Graduated cylinder meat tenderizer enzyme

Procedure: Write your own procedure, when you are finished have it check by the teacher.

**Read the hints before you write your procedure.**

**H**ow are you going to get your cheek cells?*(Hint you can use the salt solution or the toothpick.)*

How are you going to get the DNA out of the Cell and Nucleus? **You need to use a pinch of THE MEAT TENDERIZER (crush it first)** what are you going to add to see the DNA? How/ where should you add it? **W**hat should you do to get the precipitate out?

Outline of procedure (write formal procedure on back of packet.

Data: Draw your results.

Analysis questions ( one point for each answer)

1. List any errors which may have affected your results. Explain their effect. If you do not think you had a source of error explain why.
2. What was the function of the meat tenderizer?
3. Which process resulted in the highest DNA yield? Strawberry or cheek cell extraction. Explain why you think this occurred.
4. Do you think the type of cell used affects the amount of DNA extracted? Explain

Write formal procedure here