


# DNA EXTRACTION for PCR

Follow directions carefully and check off each step as you complete it!

Names/numbers: \_\_\_\_\_

  1   2   3   4

1. Choose all of the following materials **WITH THE SAME NUMBER ON THEM!** This  be your number--write it down!

- a) cup with saline
- b) large orange Eppendorf tube
- c) large white Eppendorf tube with liquid Chelex in it
- d) small white eppendorf tube

2. Swirl and swish the saline in your mouth **VIGOROUSLY** (Hard!) for 30 sec.

3. Carefully spit the saline back into the cup. Swirl to mix.

4. Use a new, clean plastic transfer pipette to put 1 ml of your "spit" into the **large orange eppendorf** tube. Use the 1 ml line on the tube to help you.



5. Close tube and spin orange tube in a **BALANCED** centrifuge for 1 min.

6. Remove orange tube from centrifuge-**DO NOT SHAKE!** Observe the white cells at the bottom of the tube. **CAREFULLY** pour as much of the liquid down the sink as you can **BUT DO NOT POUR OUT YOUR CELLS!**

7. Set the micropipettor to 15uL and add saline from the plastic container into your cells in the orange tube. **DO** this two times for a total of 30uL. Mix well by flicking the tube with your fingers.

8. Pipette 30 uL (2 X 15uL) of the cells in solution from the orange tube into the **LARGE WHITE EPPENDORF TUBE** with the Chelex liquid. Flick to mix.

9. Put your **LARGE WHITE EPPENDORF TUBE** into the hot water bath for 10-15 minutes.

10. Flick the **LARGE WHITE EPPENDORF TUBE** to mix and spin it in a balanced centrifuge for 1 minute. **DO NOT MIX AFTER CENTRIFUGING!**

11. Pipette 60uL (4X15uL) of the **LIQUID ONLY** from the Large White Eppendorf Tube into the **SMALL WHITE EPPENDORF TUBE**. Be careful and **DO NOT GET ANY OF THE SOLID STUFF FROM THE BOTTOM OF THE TUBE INTO THE PIPETTE!**

12. Put your small white eppendorf tube with the extracted DNA into the blue rack by the water bath.

13. **CLEAN UP:** Throw away:

- used cups                      used transfer pipettes                      used pipette tips  
used orange tubes      used large white tubes

**TURN IN THIS PAPER TO TEACHER!**