Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I CAN describe the basic structure of the DNA molecule.

Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_P. \_\_\_

**DNA EXTRACTION LAB**

**PROCEDURE**:

Fill in the **Observation during the experiment.**

Fill in the **Scientific Info after you have cleaned up** – look at your Pre-Lab

|  |  |
| --- | --- |
| 1. Collect saliva (no mucus) in the cup. You will need at least 10 ml. | Observation: The spit looks like:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Scientific Info: In the saliva are\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 2. Add a very SMALL scoop of salt to your cup (use scoopula) and SWIRL until all the salt is dissolved. | Observation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Scientific Info:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 3. Add 2 drops of liquid soap and SWIRL until well mixed.4. Let the mixture sit for **5** minutes. | Observation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Scientific Info:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 5. Pour the mixture into the test tube, up to the first line (apx. ¼ full). | **TEACHER CHECKPOINT!****Get teacher signature BEFORE moving on:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**teacher signature** |
| 6. The teacher will add a very small scoop of enzymes (meat tenderizer) to the test tube after signing your check-point.7. Stir **GENTLY** with **WOODEN**  **STICK**. Be careful! If you stir too hard,  you’ll break up the DNA, making it harder to see. | Observation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Scientific Info:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 8. **TILT** your test tube.9. **SLOWLY** pour rubbing (isopropyl)  alcohol into your test tube up to the second line (apx. half full)> | Observations:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Scientific Info:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 10. Alcohol is less dense than water, so it floats on top.Look for clumps of white stringy stuff where the water and alcohol layers meet. | **TEACHER CHECKPOINT!****Get teacher signature BEFORE moving on:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**teacher signature** |
| 11. DNA is a long, stringy molecule.  The salt that you added in step #1 helps it stick together.Observe the clumps of tangled DNA molecules! | My DNA looks like:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 12. You can use a wooden stick or paper  clip to collect your DNA **AND** place it in an Eppendorf tube and close the lid tightly. 13. You can thread a piece of string through the Eppendorf tube and wear your DNA as a necklace. |  |
| 14. Clean up your station. * Rinse test tube and beaker with clean water.
* Then dip and rinse in the bleach solution.

Make sure your station looks just like it did when you first sat down at this lab. | **TEACHER CHECKPOINT!****Get teacher signature BEFORE leaving class:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**teacher signature** |