

Conclusions and Analysis of DNA Extraction Lab

1. Each step in the procedure aided in isolating the DNA from other cellular materials.

Match the procedure with its function:

PROCEDURE	FUNCTION
A. Filter pulpy pea mixture through cheesecloth	___ To precipitate DNA from solution
B. Knead peas with salty/soapy solution	___ Separate components of the cell
C. Initial mashing and grinding of peas	___ Break open the cell walls
D. Use of ethanol to filtered extract	___ Dissolve cell membranes
E. Use of pineapple juice or meat tenderizer	Break up proteins

2. What did the DNA look like?

3. A person cannot see a single cotton thread 30 metres away, but if you wound thousands of threads together into a rope, it would be visible much further away. Can you use this as an analogy to explain what happened in our DNA extraction?

4. Explain what happened in the final step when you added ethanol to your pea extract.
(*Hint: DNA is soluble in water, but not in ethanol.*)

5. Why is it important for scientists to be able to remove DNA from an organism? List two reasons.

6. What are sources of contamination? Why might this lab not work properly?