Name:			
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Strawberry DNA Extraction

Today you will extract the DNA out of a strawberry. DNA contains the genetic material that codes everything living thing.

Materials

1 heavy-duty zip-lock baggie
1 strawberry (fresh or frozen and thawed)
Cheesecloth or coffee filter
Funnel
Test tube
Glass rod or pipette
1 dram container (optional)
DNA extraction buffer: 50 ml liquid dishwashing detergent (Ivory), 15 g NaCl, and 950 ml water
Ice-cold 95% ethanol or 95% isopropyl alcohol

Procedure

- 1. Place one strawberry in a zip-lock baggie.
- 2. Smash strawberry with fist for 2 minutes.
- 3. Add 10 ml extraction buffer to the bag.
- 4. Smash again for one minute.
- 5. Filter through cheesecloth or coffee filter in a funnel into test tube.
- 6. Holding test tube at an angle, slowly pour the ice-cold alcohol into the tube until the test tube is half full.
- 7. At the interface, you will see the DNA precipitate out of solution and float to the top.
- 8. You may spool the DNA on your glass rod or pipette tip.
- 9. Fill 1 dram container $\frac{1}{2}$ full with ethanol or isopropyl alcohol.
- 10. Dip glass rod or pipette tip containing DNA into the 1 dram container and cap.

Conclusion Questions

- 1. Why did you have to smash the strawberry to retrieve the DNA?
- 2. Describe what the DNA looked like.

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Search for Answers

Forensic scientists spend their time on the job searching for answers. Today you will search for answers to the following questions.

- 1. What does a forensic scientist do?
- 2. How does forensic identification work?
- 3. Is DNA effective in identifying people?
- 4. What are some interesting uses of DNA forensic identification?
- 5. Do the crime shows on TV correctly portray the work of forensic scientists?
- 6. What types of science courses would a student take to become a forensic scientist?
- 7. What type of degree would a forensic scientist need to acquire?
- 8. How much money does a forensic scientist make?