Extracting Kiwi DNA Lab

PURPOSE: To learn how DNA extraction occurs.

­MATERIALS:

* Graduated cylinder
* Dish soap
* Mortar & pestle
* Beaker
* Test tube
* Ethanol
* Kiwi
* Salt
* Scissors
* Tweezers
* Slide
* Cover slide
* Microscope

PROCEDURE:

1. While you are waiting for your materials – ensure that your mortar & pestle are clean.
2. Put kiwi in mortar.
3. Add 5ml dish soap
4. Add 2.5ml salt
5. Add 25ml water
6. Gently crush kiwi mixture with pestle for 5 min to make a consistent mash.
7. Carefully pour mash into test tube until ½ full. You could use your tweezers here.
8. Ask teacher to pour some ethanol into your clean graduated cylinder.
9. Very slowly pour a layer of the ethanol onto the kiwi mixture in test tube until ¾ full.
10. Place test tube carefully in beaker to leave set for 5 min. (Take your photos while waiting. *This is the only time your phone should be visible*)
11. Observe DNA as it moves to the surface and answer questions attached.
12. Use tweezers to gently attempt to draw a strand of DNA free for slide preparation.
13. Observe prepared DNA slide and describe.
14. **Clean** and replace all materials and complete questions. **Please make sure all of your materials are properly and completely cleaned.**

DIAGRAM OF SET UP and OBSERVATIONS (label materials AND WHAT YOU SEE)

* Instead of drawing this here, I would like you take a picture of the set up and the results. Include this in your ePortfolio.

**Please include the following observations, questions & answers on your Unit 1 page of your ePortfolio. This should be found under the heading “Extracting Kiwi DNA lab”. Include your photos (min 2). Yes, each lab partner needs to complete their own write up on their eP.**

OBSERVATIONS:

1. Describe the appearance of the DNA.
2. Did it look like what you expected? Explain.

QUESTIONS / CONCLUSION:

1. Why was it necessary to mash the kiwi to release the DNA?

1. What step do you think made the DNA visible?
2. If you wanted to get more visible DNA, what ingredient would you add more of?
3. Do you think DNA from another organism would look the same? Why / why not? If you did the Strawberry DNA lab last year, how did the results compare? Why do you think that is?