Lab #1: Paper Chromatography

Using the Scientific Method your group will find the answer to the following question: ***Is the black ink in a marker pen a pure substance or a solution***?

Materials Needed:

* Filter paper or coffee filters
* Pencil
* 250-ml beaker
* Black, water-soluble marker pen
* Paper towels
* Water

Purpose: (state the problem or question here) 1 mark

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Hypothesis: (predict the outcome to the problem or question) 2 marks

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Procedure: (this is the part where you follow directions instead of asking me the same question a million times ;-) !!)

1. Cut a piece of filter paper so that it is slightly larger than the width and height of the beaker. This will become your chromatogram.
2. Using a pencil, draw a horizontal line 1 cm from ONE end of the paper.
3. Put TWO large dots of black ink on the filter paper along the horizontal line. Make sure that the dots aren’t too close to each other.
4. Pour water into the beaker to a depth of 0.5 cm.
5. Predict what will happen to the ink dots when you put the paper in water:

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1. Curve the paper so that it can stand up by itself in the beaker. Be sure the bottom edge is touching the bottom of the beaker. The line of dots should be just above the water. ***Do NOT allow the water to touch the line of dots.***
2. The water will move up as it soaks into the paper. When the water almost reaches the top of the paper, take the paper out and place it on a paper towel. Allow it to dry.

Collecting Data:

Record your observations and be sure to include or draw your strip of paper!

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**Put your strip of paper here:**

2 Marks

Analysis: (What happened to the original color of the black dots?)

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1 mark

Conclusion: (This must answer the purpose! Did your results match your hypothesis? Make sure you explain what you have learned here!!)

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5 marks

Neatness/Accuracy: 5 marks

Lab questions answered: 12 marks

Total: 17 marks

GROUP MEMBERS: