

## Preparing Solutions Lab

- (2) All in order
- (3) Complete
- (3) Neatly done
- (1) **Title:** appropriate, informative
- (2) **Purpose:**
  - 1 Part A - to learn how to make a solution from a solid
  - 1 Part B - to learn how to make a solution by dilution
- (6) **Background Information:**
  - 1 procedure for how to use a balance
  - 1 procedure for using a volumetric flask
  - 1 procedure for using a pipet
  - 1 Use of balance - *put beaker on balance and reset to zero*
  - 1 Use of volumetric flask - *use eyedropper for last bit of water*
  - 1 Use of pipet - *clean the pipet before and after use*
- (3) **Materials** - picked at random
  - 1 Part A - clean dry beaker
  - 1 Part B - 10.0 mL pipet
  - 1 Part B - 100.0 mL volumetric flask
- (5) **Procedure:**
  - 2 Calculation of mass required for first solution
  - 1 Part A - *dissolve solute in a smaller amount of water*
  - 1 Part A - *invert the volumetric flask a number of times*
  - 1 Part B - *transfer the concentrated solution to volumetric flask with a pipet*
- (3) **Observations:**
  - 1 Solution 1 - *solution is a deep blue colour*
  - 1 Solution 2 - *solution is a lighter blue*
  - 1 Solution 3 - *solution is a faint blue*
- (6) **Conclusion**
  - 2 Calculation of concentrations for part B
  - 3 solution 1  $c = 0.050 \text{ mol/L}$
  - solution 2  $c = 0.010 \text{ mol/L}$
  - solution 3  $v = 8.0 \text{ mL}$
  - 1 Colour of solution indicates the concentration of the solution.

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