**Dissolving Poster (2 Days)**

Background Information: This project will allow you to investigate and determine the structure of a solution of dissolved solute in solvent. You must finish this project with the time given in class, so be sure to stay on task. A grading rubric is on the back and must be submitted with the final product.

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| Rough draft (8.5” x 11”)* Divide a small sheet of paper (notebook sized, 8.5” x 11”) into three equal sized parts in any arrangement you wish.. In each of the three parts draw the largest beaker you can fit. Label these three beakers **solid**, **liquid**, **aqueous**.
* From the front of the room, write the *formula* of one substance each from Trays A, B, and C.

Formula for Substance A\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Substance B\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Substance C \_\_\_\_\_\_\_\_\_\_\_\_\_.* In your solid beaker draw Substance A as a nice brick wall of **at least a dozen** ions showing their arrangement as a solid. Label each particle with the correct charge. Respect the formula (i.e. K2S would have two K’s for every S).
* In your liquid beaker draw Substance B showing **at least a dozen** ions showing their arrangement as a liquid. Label each particle with the correct charge.
* In your aqueous beaker draw Substance C with **at least a dozen** ions showing their arrangement as an aqueous solution. Label each particle with the correct charge.
* In the aqueous beaker, show a few water molecules around each dissolved ion. Each water must:
	+ Look like this  or this  or this  and…
	+ …and be pointed in the correct direction. (Remember that “O” points toward cations and “H” points toward anions)
* Get a stamp from your teacher. He will especially check your charges!
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| **Poster (hallway sized)*** Get as big a piece of paper as you want and draw three beakers with pencil (in case you change your mind about how big to make the beakers).
* Imitate the contents of the three beakers from your smaller mini poster, but you must use the following materials:
	+ polyatomic ions PAPER CUT OUTS FROM THE PHOTOCOPIER
	+ single-atom ions DRAWN WITH A MARKER OR PEN
	+ water molecules in all four beakers STAMPED WITH A BINGO INK STAMP like this or this
* Put your names on the front of the poster somewhere.
* Finally, here’s the creative part: Make an engaging or funny or nicely drawn title.
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Good luck and have fun. Be creative!!

Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Solution Poster Grading Rubric**

Use the following rubric to self-evaluate your project. This form needs to be submitted with your final product!!

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|  | Points Possible | Student checks here | Teacher checks here |
| Got the stamp for the mini poster (staple on one or more mini posters when turning in) | 3 |  |  |
| .every ion has a correct charge written by it | 3 |  |  |
| Correct materials: polyatomic ions are PAPER CUT OUTS FROM THE PHOTOCOPIER | 1 |  |  |
| Correct materials: single-atom ions are DRAWN WITH A MARKER OR PEN | 1 |  |  |
| Correct materials: water molecules in all four beakers STAMPED WITH A BINGO INK STAMP | 1 |  |  |
| ratio of anion- to-cation correctly reflects the formula of the substance | 3 |  |  |
| on the aqueous beaker there are several water molecules are surrounding each of the ions | 2 |  |  |
| water molecules are correctly rotated | 4 |  |  |
| title is big, bold, funny, not boring, makes viewer want to come closer to check out the poster | 1 |  |  |
| the poster looks good and is posted in the hallway | 1 |  |  |
| names are on the poster | 1 |  |  |
| any chemist looking at the particle arrangement could tell the phases (s, L, aq)  | 2 |  |  |
| Chose substances from all three trays | 4 |  |  |
| this rubric was turned in at the front box in the classroom | 3 |  |  |
| TOTAL | **30** |  |  |