**Middle School STEM Science Lab/Activity Planner**

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| Name of Lab/Activity:  **Big Sort** | | | Grade:7 |
| California Science Standard(s): (please copy and paste standards taught during this lesson)  **Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.** | | | |
| Common Core Science Reading and/or Writing Standard(s): (please copy and paste standards taught during this lesson)  **Integrate qualitative or technical information expressed in words in a text with a version of that information expressed visually (e.g. in a flowchart, diagram, model, graph, or table.)** | | | |
| Learning Objective/Goal:  **Students will learn how to classify different life-forms/oranisms based on their characteristic features.** | | | |
| Language Objective/Goal: (based on California Common Core Standards) | | | |
| Next Generation Science Standards – ): (please copy and paste any of the 8 Science and Engineering standards taught during this lesson, as well as any Cross Cutting Concepts that apply) | | | |
| Materials & Resources:  Part A  **milk, cream cheese, corn, sugar, vanilla, orange juice, butter, potatoes, eggs, flour, dish, fork**  Part B  giraffes, apple trees, dogs, chickens, tigers, ferns, cats, zebras, horses, ducks, mushrooms cows, | | | |
| Procedure:  **Brainstorm with student and create a list on the board of criteria that could be used for organizing the items in Part A into groups and subgroups.**  **Provide students with the 12 items in Part A and have them sort the items into 3 groups, (or 4 groups for higher functioning students) such that one group is a subgroup of the other group and both groups are subgroups of a larger group. Have students use the Venn diagram to record the names of the items in each group, and describe the criteria they used for sorting the items into groups.**  **Provide students with photo cards of the 12 items in Part B and have them create the criteria and sort the items into groups and subgroups.** | | Teaching Notes: (include timing)  Possible groups & subgroups  Part A   * Items in a Kitchen * Food * Cake Ingredients * Refrigerated items * Dairy products   Part B   * Living Things * Animals * Four legged Animals * Domesticated (tamed) animals * Pets | |
| Math Connection (Including CCSS Math Practice(s):  **Calculate the percentage of all the items that are represented by each subset in your Venn diagram.** | | Teaching Notes: | |
| Technology Used to Extend Learning:  **Use Excel to choose and create a graph that represents the percentages you calculated for each group and subgroup.** | | Teaching Notes: | |
| Formative Assessment: (please attach a copy) | | Teaching Notes: | |
| Strategies for EL & Special Needs Students (ELD CCSS:  **Provide the categories that the items should be sorted into.** | | Vocabulary:  Venn, subset | |
| Alignment in science unit: (Brief description of lessons taught **prior to & after** this lab/activity)  **This is an introductory activity to classification of organisms.** | | | |
| Brief description of lessons taught **after** this lab/activity: | | | |
| Lab/Activity adapted from: (website, textbook, etc.)  Prentice Hall California Life Science | Formative Assessment adapted from: | | |
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| This lesson was developed by: | | | |
| Teacher’s Name | Currently Teaching at: (School & District) | | |
| Joan Martin Lake | Bernal Intermediate, Oak Grove School Dist | | |