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

|  |  |
| --- | --- |
| 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 Bgiraffes, 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 & subgroupsPart 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: |
|  |
| This lesson was developed by: |
| Teacher’s Name | Currently Teaching at: (School & District) |
| Joan Martin Lake | Bernal Intermediate, Oak Grove School Dist |