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| **Group It!****C:\Users\sse11532\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\OVQZIEL9\MC900183052[1].wmf** |
| **Background Information**  |
| You have been learning about living organisms and non-living objects. You have learned how to group them by what their attributes are. You even know how to explain why they are different! Today you will begin a new challenge! * This challenge was designed based off of “Growing Plants” that can be found at: <http://www.childrensengineering.com/DB-GrowingPlants.pdf>
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| **Design Challenge** |
| Walmart Supercenter is looking for a new way of organizing and displaying all items that they sell in their stores. They want a more efficient way of stocking their shelves and isles for maximum monetary profits. Walmart Supercenter has a garden department and a pet department. They know that you have been learning all about classifying and grouping both living organisms and non-living objects. They need your expert help! They would like you to create displays based upon different organisms or objects that you have built. Your job will be to work in a group of 3 to 4 students to create your very own living organisms and nonliving objects. Your shelf displays must be organized based upon appearance, size, and color. Each group member must create 2 objects each and figure out a way to make their objects free standing. Have fun and get your marketing abilities ready!  |
| **Criteria** |
| Your must: * Have 2 different types of objects
* Each student must make 1 of each type of living organism or nonliving object.
* Your organisms or objects should be free standing.
* The shelves need to be organized by one of the following: appearance, size, or color.
 |
| **Materials/Tools:** |
| * construction paper
* craft sticks
* paper towel rolls
* pipe cleaners
* glue
* brass fasteners
 | * empty plastic bottles
* Styrofoam cups/coolers
* Cardstock
* Scotch tape or masking
* string/yarn
 |
| **Standards** |
| **Science**SKL1. Students will sort living organisms and non-living materials into groups by observable physical attributes.SKL2. Students will compare the similarities and differences in groups of organisms. |
| **Assessments/Rubrics** |
| * Student Journals
* Student Checklist
* Teacher Observation
 |

**![C:\Users\sse11532\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\OVQZIEL9\MC900183052[1].wmf]()Plant It!**

**Student Journal**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. ASK: What is the problem? 
* State the problem in words.

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OR draw a picture of the problem and label it.

1. ![C:\Users\sse11532\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\USN4D55T\MC900441880[1].wmf]()BRAINSTORM Possibilities
* What do you already know that will help you solve this problem?
* Think about the constraints of this challenge.
* Sketch or describe some possible solutions.
* Be sure to add labels to your design.

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1. CREATE the solution that you think is best. Share your ideas with your group and decide which design is the best possible solution to the problem.
* Write down your design plan step-by-step.

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| 4. |

* List or draw the materials that you will need to complete your design.
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* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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1. DRAW and label your final design.

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1. EVALUATE your solution.
	1. Test your design
	2. Record your results
	3. Did your design solve the problem?

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Circle your answer.

 Did your group organize the garden by size, color, or appearance? YES NO

**![C:\Users\sse11532\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\USN4D55T\MC900391454[1].wmf]()**Did all of your group’s plants stay standing? YES NO

![C:\Users\sse11532\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\SEDMZEHV\MC900014089[1].wmf]() Did all group members create 3 plants? YES NO

* How could you improve your design?
* What could you do differently next time? Draw or write

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