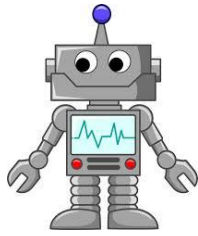


Robot Project

Name _____



Sheppard Toy Company (STC) wants to produce a new product. After weeks of market research, they learn that there is a high interest in robots. **STC** would like to make the largest robot possible (as measured by volume) for the least amount of money. Cost will be based on the surface area of the robot. You have been chosen to make a prototype of the new toy. The robot with the greatest volume will win!

Good luck !

Steps	Resources Needed																														
<p>1. Sketch your robot based on the following parameters – using a piece of notebook paper.</p> <ul style="list-style-type: none"> - Head - cube - Body - rectangular prism - Arms - triangular prisms - Legs - rectangular prisms 	<p>- paper for sketching</p>																														
<p>2. Draw nets of each figure on grid paper from the classroom. Make drawings to scale and label the length of each side.</p>	<p>- Notebook - 7 sheets grid paper - Ruler</p>																														
<p>3. Complete the chart below.</p> <table border="1" data-bbox="191 1371 789 1852"> <thead> <tr> <th data-bbox="191 1371 394 1602">Figure Name</th> <th data-bbox="394 1371 594 1602">Surface Area</th> <th data-bbox="594 1371 643 1602">L e n g t h</th> <th data-bbox="643 1371 691 1602">W i d t h</th> <th data-bbox="691 1371 740 1602">H e i g h t</th> <th data-bbox="740 1371 789 1602">V o l u m e</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Figure Name	Surface Area	L e n g t h	W i d t h	H e i g h t	V o l u m e																									<p>- Notebook</p>
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<p>4. Have a peer check your work. They must sign off on each surface area and volume measurement. A calculator should be used to check work.</p> <p>*By typing my name below, I acknowledge that all of the measurements above are correct. If there were mistakes I left feedback and have checked them again after being corrected. *</p> <p>Peer Signature:</p>	<p>- Calculator</p>
<p>5. Determine Material Costs</p> <ul style="list-style-type: none"> ● Cardboard costs \$0.06 per sq in. What is the total cost of cardboard needed to build your robot? <ul style="list-style-type: none"> ○ Cost of cardboard: ● The robot needs to be filled with unit cubes to help it stand up. Unit cubes are costs \$0.12 per cubic in. What is the total cost of the unit cubes needed to fill your robot? <ul style="list-style-type: none"> ○ Cost of unit cubes: ● Assuming that adhesives are free, what is the total cost of your robot? <ul style="list-style-type: none"> ○ Total Cost: 	
<p>6. Build Your Figures. Make sure to label all of your pieces for storage in the classroom. Assemble your robot and tape to a piece of construction paper.</p>	<p>- Nets - Tape - Scissors</p>
<p>7. Name your Robot. Create a FLYER introducing your Robot as the New Toy of the Year! Use the flyer to persuade kids to buy your toy. Make it colorful!</p>	<p>Paper Markers/crayons</p>