Molecules 21-Tech Bridging Document



Exhibit Content Focus:

Kids build molecular models. The idea is that different molecules have different number of "places" to bond (some form only one bond, others two, others four). Plus, when the atoms bond to create molecules, the properties of the substances change. For example, oxygen is a gas that allows things to burn and hydrogen is an explosive gas. Put them together and you get water. There is a key for the colors of the balls at the component along with challenge cards. They can also try to re-create one of the examples we have up or create their own.

Related Apps:

• <u>Name</u>: Molecules



- <u>Description</u>: This app has 3-D renderings of very complex molecules.
- o <u>Relation to Exhibit Content</u>: Great for showing just how complex molecules can get.

• <u>Name</u>: The Elements



- <u>Description</u>: This app is a list of all the elements on the periodic table and gives visual examples, properties, and tells stories about each one.
- <u>Relation to Exhibit Content</u>: Explore the different elements and their properties and compare them to the properties of the molecules they form.
- <u>Name</u>: Nice Molecules
 - <u>Icon</u>:
 - <u>Description</u>: This app has 3-D renderings quite a few molecules. You can manually spin the molecules or press the stick with arrow icon to make it spin automatically. The three circles with lines icon changes the type of molecular model and the "+" sign opens the menu of molecules from which you can select. The "i" gives more information about the molecules and the "?" opens the help menu.
 - o <u>Relation to Exhibit Content</u>: Shows many other examples of molecules for kids to build.
 - \circ <u>Helpful Hints</u>: press the "2x" button to expand the image to fill the screen.

Additional Information/Resources:

http://en.wikipedia.org/wiki/Molecular_model http://www.creative-chemistry.org.uk/molecules/ http://www.nyu.edu/pages/mathmol/library/