Station 1: Are You Weak in the Knees? **Engineer:_____**

Language of the Discipline 

Key Understandings   

***How might you minimize the impact of tension and compression on your structure?**

***What materials would you recommend when building? Why?**

Completed Structure:
***Height _____** ***Weight _____**

***Created Structure:**

***Maximum Weight Held: _____**

Design Implications

Station 2: May the Force Be With You!

Language of the Discipline

Key Understandings



***What types of conditions must skyscrapers be built on to endure over time?**

***How does building with steel beams impact your structure?**

Whatever the Weather Results:

Original Two-Story Frame	Wind Impact (Blow)	Earthquake Impact (Shake)	Gravity Impact (Book)

Design Implications

Station 3: Look Out Below!

Language of the Discipline

Key Understandings



***What caused the Leaning Tower of Pisa to lean? Why hasn't it been corrected?**

***How are rafts and piles used in the building of skyscrapers?**

(Cardboard) Raft Impact	(Few Toothpicks) Piles Impact	(Many Toothpicks) Piles Impact

Design Implications

Station 4: Going Green!

Language of the Discipline 

Key Understandings    

***How have skyscrapers changed over time?**

***How have engineers and architects made skyscrapers more environmentally friendly?**

Note/Sketch of "Green" elements

Hearst Building: Building Green	One of NYC's Greenest Skyscrapers	Crazy Skyscrapers from the Future

Design Implications