** Strong Structures Learning Labs**

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*Visit the Strong Structures project Weebly to access website links found in these labs:*
(Durant website - - hover over Our School - - Media Center - - Student Research - - Weebly - - Science - - Strong Structures)
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Station 1: Constructing a Tower 

**WATCH:** Watch this 2.5-minute video: <https://www.youtube.com/watch?v=rwvmru5JmXk>

**LOOK FOR:** Pay attention to the building process. What is built first? How is the building put together? Did you notice key building materials and/or ways of fitting pieces together?

**RE-WATCH:** Watch the video a second time. Write down FOUR things you learned that answer the ‘look for’ questions above.

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Station 2: Famous Structures 

Visit the tallest towers website ([http://www.skyscraper.org/TALLEST\_TOWERS/tallest.htm](http://www.skyscraper.org/TALLEST_TOWERS?tallest.htm)).

**ANALYZE:** Select THREE different buildings by clicking on the red dot underneath each building and explain the most important characteristics that make it structurally strong.

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|  | **From looking at the picture of each building & reading the description, explain the most important characteristics that make each building structurally strong.** |
| Example*Manhattan Life Building (1909)* | * *Built using granite, brick, and terra-cotta.*
* *U-shape*
* *Pneumotic caissons for the foundation*
 |
| Building 1 |  |
| Building 2 |  |

Station 3: What makes structures strong? 

**VISIT:** PBS Loads Lab: <http://www.pbs.org/wgbh/buildingbig/lab/loads.html>

**PLAY AND LEARN:** Explore the Forces, Loads, Materials, and Shapes pages to learn about different impacts on structures. Click on the ‘Try it’ and ‘Strengthen it’ buttons as you play and learn.

**REFLECT ON AND ANSWER:**

1. What characteristics make structures strong? Write your insights below. Then, write one of your reflections in pencil on the class Wonder Wall.

2. What characteristics make structures weak? Write your insights below. Then, write one of your reflections in pencil on the class Wonder Wall.

*This Wonder Wall will be displayed in your classroom on construction day.*