Building

The month of January was devoted to building! The children loved this unit because we had so much fun exploring and building. The teachers loved the unit because within all the fun there was a lot of learning happening!

Block play promotes self esteem.
Block play promotes cooperative play.
Block play promotes language development.
Block play promotes spatial skills.
Block play promotes math skills.
Block play promotes fine and gross motor skills.
Block play promotes creative, divergent problem-solving.

The children's watercolor skyscrapers.
ARCHITECTS
Architects Brandon and Shanna Nicholson, Ben’s parent, spent two morning’s in the kindergarten sharing their knowledge of buildings. The first morning they talked with us about different structures. They showed the children examples of these structures and then the children used their bodies to build the structures.

We started simply by becoming columns and then beams. Adding wooden blocks to our arms allowed the children to feel the difference in the weight of the block when using just a column or a combination of columns and beams.

We experimented with tension by joining hands and leaning backwards. We were able to support each other. In contrast, we used force to support each other by pushing our hands together.

We built arches and combined them into domes and tunnels. We each stood on an arch to demonstrate the strength of a compression form.

We discussed the pros and cons of cantilevers, adding weight to our arm to see if it will tip.

The grand finale was a demonstration of a flying buttress!

Ben demonstrating a flying buttress!
BUILDING EXPLORATION
To begin our building experience, we spent the first week exploring the building materials that we have in the classroom. We added some everyday materials such as cups, bowls and cards.

We combined different materials such as shaving cream, pipes and lights to create an interesting experience.

Enabling the children time to really explore the materials allowed for more complex structures and in depth questioning. After building towers with popsicle sticks and blocks the children wanted to know if their structure was strong enough to withstand wind. We brought in a fan to test their structures.
The children were then given the hollow blocks and challenged to build a high, stable tower. The group discussed safety parameters, such as putting the heavy blocks on the bottom, using a chair (with an adult) to reach over your head, creating a stable base and taking the top blocks down first. We used a yard stick to measure the towers.

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Once we practiced building stable towers, we took the Wrecking Ball Challenge. The children, working in small groups, were given 8 minutes to build a sturdy tower using the wooden blocks. When time was up Mrs. Blizman gave the structure three swings with the wrecking ball to test the strength of the building. We learned that buildings with a sturdy base and wider core survived!
An important aspect of being an architect is drawing a set of plans and then using those plans to build. The children practiced drawing buildings from photos, building structures from photos, and following a set of instructions.

To practice our design, drawing and building skills, the children randomly chose a variety of wood scraps. They manipulated the pieces into a design of their choice. The final design was photographed and disassembled. The photos were printed and used to rebuild the designs with wood glue. At times, additional pieces and decoration were added. Jennifer Balog assisted the children in drawing the elevation or side of their pieces. The children dictated stories about their piece and drew characters to place in the structures.

Shaylee, Boden, Savanna, Emmet, and Collin designing and building their structures.
We used our Friday mornings for building relationships. The children participated in cooperative building activities. One activity was the Mirror Building. The children were paired up, one child was the builder and the other was the mirror. The “builder” used the given materials to build. The “mirror” had to build the exact structure. The children really worked together, helping each other to build exact duplicates of the structures.

One of the children’s favorite cooperative building activities was building with the school’s set of Architectural Blocks. The blocks were designed specifically to build cooperation in children. The weight and size of the pieces make cooperating a necessity. The children worked together to build a Kindergarten Mansion that included a library, party room, kitchen, and bedrooms. Not only did they work together to build and play but the cooperation carried over into clean up!

**The children working with the Architectural Blocks.**