The children’s watercolor skyscrapers.

THE BENEFITS OF BUILDING
The month of November was devoted to the city of Pittsburgh and building! The children loved this unit because we had so much fun exploring and constructing. 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 cooperation and social development.
Block play promotes language development.
Block play promotes fine and gross motor skills.
Block play promotes creative, divergent problem-solving.
Block play promotes spatial skills.
Block play promotes math skills.

Sydnee and her house.
Our discussion of maps and the directional points led to interest in the compass and magnets. We explored magnets by testing objects that are attracted to the magnetic field. We discovered that the magnetic poles either attract each other or repel.

**ARCHITECTURAL ELEMENTS**

The children learned some architectural elements that we use in building. 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 with our arms and combined them into domes and tunnels. We talked about the strength of an arch. We each stood on an arch to demonstrate the strength of a compression form.

We began our study of Pittsburgh by providing maps of the city for the children to study. Right away they recognized the three rivers and the city. Teaching children how to read a map and relate it to real world objects helps to develop spatial awareness. We read the book *Me On The Map* which introduced the main parts of a map. The children then drew a map of the classroom, making sure to include the most important places such as the rainbow rug, sink and colored tables. We also used colored shapes to recreate the classroom map. The children placed several objects in position on a board according to how they were photographed. We also plotted our home address on the map of Pittsburgh.
TOWERS: BUILDING UP

The class spent an entire week building up. We set up the tables with a variety of materials and gave the children a marked ruler, asking them to build as high as the mark. “When children build up, the forces of gravity, compression, and tension affect their structure’s stability in dramatic ways. By working with different materials in various ways, children can experience and control the degree to which towers wobble and fall over. But children don’t always have opportunities to think about how their choice of building materials and designs affect their structure’s stability. So the focused exploration offers them opportunities to revisit, represent, and discuss their work. They are encouraged to reflect on evidence to support their developing theories about how building materials and design affect a structure’s stability.” (Building Structures With Young Children)

SPECIAL GUEST SPEAKER: JOE, A CARPENTER

The kindergarten class was lucky to have a special visit from Joe, the Carpenter (who also happens to be Mrs. Armbruster’s brother in law). Joe explained the process of building UP. He described step by step, the process of reading the blueprints, breaking ground, excavating, pouring the foundation, adding concert slabs, rebar and more. The friends eagerly asked questions, made connections, and shared their own building experiences. Joe was impressed with their knowledge of architecture.
COOPERATIVE BUILDING
During our unit we focused on building relationships. The friends participated in a two day cooperative building challenge. The children were grouped to work as a team, building their own kindergarten city. After spending two days building and creating, they presented their completed structures to the class. Each child then had the chance to describe their building and its purpose within the city. As the friends detailed their structures, they incorporated theme related vocabulary into their description.

WOODEN SCULPTURES
We ended the unit by constructing our own unique, wooden sculptures or buildings. The children were given a wooden base with the open-ended instructions to build on the base. We provided a variety of scrap wood pieces, ribbon spools, corks, popsicle sticks and marker caps for the children to use on their sculpture. The children worked for several days, first on gluing the sculpture together, and then painting their creation. The final days were spent embellishing their artwork with beads, pom poms, sequins and gems. The final products are a great demonstration of their creativity and perseverance.