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## MINDS UNDER CONSTRUCTION

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# MINDS UNDER CONSTRUCTION

## JUDI GUISTI

*Judi Guisti has a Bachelors in Elementary Education with a Minor in Early Childhood and Masters of Special Education P-4. She has taught preschool for 16 years at public school preschool and Head Start.*

## RESEARCH ON THE VALUE OF THE BLOCK CENTER

Through block play, children enhance their literacy skills. As they play with blocks they also learn math, science, and social studies concepts. Block play often involves cooperative, collaborative learning, which helps children grow emotionally and socially. Block play also enhances children's physical growth and development.

In 1915, Caroline Pratt developed the unit block. The unit blocks are designed mathematically- two smaller blocks equals one larger block (Gura, 1993). After studying the children's use of the unit blocks, Harriet Johnson, a colleague of Pratt's, developed stages of block building:

**Stage 1: Prebuilding:** In this stage children carry, move, touch, hold, pile, knock down, drop, and feel the blocks. Children do little or no building. Instead they explore the properties and characteristics of the blocks.

**Stage 2: Rows and Towers:** In this stage, children stack blocks vertically, lay them down and line them up, or configure them horizontally.

**Stage 3: Bridging:** It is the stage when children begin to make structures. Bridging is when children form a space between two blocks, and then place a block to span the space. Eventually, their bridges will become more elaborate.

**Stage 4: Enclosures:** At this stage, children can close up a space between blocks with another block. Children begin problem solving by planning ahead how they will close up spaces. They begin to understand the meaning of inside, outside, perimeter, and boundaries.

**Stage 5: Patterns:** This is the state where children begin making elaborate, decorative structures.

**Stage 6: Naming of Structures and Early Representation:** Children will build their structures to look much like what they have planned in advance.

**Stage 7: Reproduction:** Children will actually reproduce buildings and structures that they have seen. They also use their structures in dramatic play (Reifel, 1984).  
179).

In a rich environment, children learn through their own explorations. Here are some ways adults can interact with children during block play:

- Children often build what they know from experiences. We can take them for walks to notice buildings, or teach them about building features
- We acknowledge children's learning throughout the environment. Why not in the

construction zone.

1. We can do this by taking photographs of their structures to send home or to display with their names.
2. We can also do this by displaying and sending home their sketches of drawings.
3. We can encourage them to reflect upon and discuss their structure.
4. We can encourage them to write about their structures.

Ways we can interact with children as they build:

1. Listen
2. Ask questions to help them think more deeply
3. Name the type of block being used to help them recognize the mathematical relationships.
4. Use spatial and mathematical vocabulary (add, subtract, more, less, greater, fewer, point, line, angle, surface, plane, symmetry, asymmetry).

Use block talks for many things:

1. Look at building and discuss the architectural features.
2. Introduce new materials.
3. Make plans for block building.
4. Talk about photos or sketches of their current building and discuss their design elements.
5. Have children take turns talking about their structures (or pictures or sketches) to the whole or small groups.

Challenge the children to copy the structure depicted in one of our block books.

By playing with blocks children are gaining skills they need to be successful! (Bullard, 2014. pp. 188-190).

The area should be large enough to accommodate the number of children that will be using the center. Preschoolers should be allowed to save their structures, so keep this in mind. The block area should be in a semi-enclosed area with a no-build zone around the shelves so that they are accessible to get or put away materials.

In order to provide a rich building experience, it is critical that there are enough blocks.

- 586 blocks for 3-year-old children
- 748 blocks for 4-year-old children
- 980 blocks for children who are 5 years old and older

The blocks should be arranged on a labeled open shelf mathematically (Bullard, 2014, p. 183).

There are many things that you can add to the block area to enhance the learning of the children there as you will see in the photos.

## INTRODUCTION TO THE CONSTRUCTION ZONE CENTER

While taking an Early Childhood Environments graduate course, I came to the realization that the block area at my preschool was seriously lacking in many ways. I decided that I would use it for a class assignment by doing a semi-extreme makeover.

One day one of the neighbors near the school had a tree trimmer at their house trimming their trees. A colleague knew I wanted to have log blocks in my new design. She dashed through the door to find me. I took a walk across the street and asked the workers if I could please have some of the branches before they put them through the mulcher. They asked why and when I told them they were happy to help. They even cut the spare branches off of the larger pieces. I made trips to the playground fence and handed them to my co-teacher and her entourage. After we went inside, the men even continued

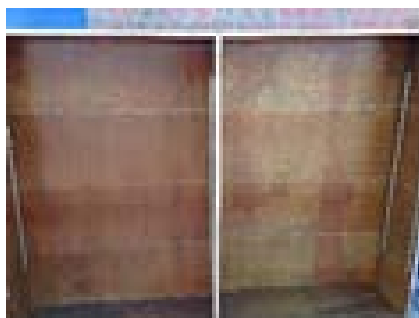
to throw the branches over the fence for me. The children were so excited. One of them announced that I was going to make them a tree house. I then had to make Fairy Houses to fulfill the tree house idea in a small way.

My husband I then spent five hours cutting and sanding each hunk of tree branch. He started out cutting really small pieces but that didn't last long. I am glad he made some small because that made perfect pieces for our student with special needs who is able to use her Angel Arm to move small objects (as pictured below). I wanted to show him how much the children appreciated what he did. When I got to the picture of our little one playing on her wheel chair he got a little emotional. Anyway, long story short this was the first of several changes I made to my center.

## CENTER PHOTOS BEFORE CHANGE



*Construction Zone before picture. The center contained no unit blocks, shelves were not marked, and there was nothing on the shelves. The only things available was what the OWL unit calls for. In this case, it was to build house with the Lincoln logs. This bright ABC/123 carpet was used to define the area.*



*This is the shelf I rescued from the districts furniture graveyard. It has three identical sections and is two sided. I attempted to sand it with my husband's belt sander. The material was so soft and the finish on there was so sticky that I began to dig lines into the wood. I did my best because I really wanted to keep the shelf a natural wood color.*

## AFTER MAKEOVER



*Dozens of tree blocks cost nothing to make but time (and some sandpaper).*

*I added pinecones and rocks as natural elements. I added the fairy houses (which are made from cake stands from my daughter's wedding) and more wood slabs. I added laminated windows and doors with tape for them to make more Fairy Houses, fairies, wooden pieces (people, hearts, small pots, and a few bears), a basket of gems, fabric, hammocks for the Fairy Houses, extra leaves attached to hair clips to decorate the Fairy Houses, paint stir sticks, and the kids favorite, tea lights (camp fires). I also added books that related to structures and building with blocks. Another teacher helped me add no build zones in front of each shelf.*



*Take note that the bright carpet is gone. The tape is down to represent a no building zone so that children are still able to access the materials on the shelves. This shelf now has this picture on it so that children know where to put the blocks away.*



*The large shelf pictured contains props. Note the labeling system.*



*Each basket has a number which corresponds with the same number on the shelf. It has made quite a difference in children's ability to clean-up independently with everything is in its place.*



*The basket pictured contains clip board with graph paper for the children to make building plans.*



*Children experiment with the new blocks, props, and tea lights.*



*More girls are choosing the construction zone because of the high interest items that are now in it. The children are also using the printed off/laminate doors and window to make a Fairy Community.*

## CONCLUSION

At this new and improved construction zone, I did witness “Minds Under Construction.” The children became engaged in designing and making buildings, ramps, vehicles, and fairy villages. The open-ended materials provided in the block area allowed children to experience skills across all curricular areas. I learned first-hand that the materials teachers provide in the block area can have a profound effect on the learning and engagement that takes place there.

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