Block-building centers within choice-based art programs provide children with innumerable ways to experience and experiment with STEAM (Science, Technology, Mathematics, Engineering and Art). Most elementary and middle-school students are familiar with block play from early childhood and are highly motivated to expand on their existing knowledge.

Mark and Evan are focused on their architecture project. Fellow classmate John stops by to watch his two fourth-grade classmates build an inverted 48-inch block tower on top of two narrow platforms. The boys exchange dialogue as they come to a delicate phase in their work:

“Ok wait, it’s almost good on this side,” signals Evan.

“Their teacher observes, “You’re playing with high-stakes risks.”

Evan: “OK, OK.”

Teacher: “You might lose it all.”

The tower teeters slightly to the left and then to the right. The tension in the art room is palpable.

“Hold on, hold on,” Mark pleads with Evan. They look at each other and grin wide smiles knowing their building experiment might come tumbling down at any moment.

Evan notices a problem, “It’s curving this way, we need to add more some weight to this side.”

The structure regains stability as the boys adjust the top of the tower.

“YES! YES!” Mark excitedly declares success.

Teacher: “Mark, you only have two little blocks holding up the whole thing!”

Evan continues to make adjustments, “If we apply any more weight to this side, then we will have to add a counter-weight to the other side.”

Mark notices classmate John watching the unfolding drama, “John! John! Look at this! These two little blocks are holding up the whole thing!!”

Evan makes a critical decision. He decides to add more blocks, “OK. Here is the moment of truth.” The tower begins to teeter slowly, then without warning, CRASH! The tower falls into the nearby storage box from which it first came.

“That was AWESOME!” the boys exclaim.

Their teacher questions the team, “Mark, Evan. What happened?”

Evan responds, “Not enough balance, but it was fun in the making. These two little blocks were holding up the whole thing.”

Profound learning occurs at the block center on an almost daily basis. Add marbles and the center becomes a field laboratory for the investigation of Newtonian physics!

Fifth-grader Frank and his construction team are interested in kinetic energy. “All right, ready? Go!” He releases a glass marble from the top of a three-foot cardboard tube set at 45 degrees. Gravity powers the streaking sphere toward a series of ramps and landing pads constructed of wooden blocks and assorted materials.

The construction crew watches in anticipation as the marble speeds down a 15-foot pathway engineered with columns, spans, rails and support features. Suddenly, the projectile hits a snag on the course and flies off track. “What?!?” The kinetic artists look on in disbelief.

Frank adjusts the structure. His team gathers around and new ideas to improve the multi-level structure are considered. “I got it!” declares one of the boys. The block artists set off to work, implementing new design changes. The boys soon experience success as a new attempt results in a clean bucket landing. The collaborators erupt, “Yeaahh! Let’s do it again!”

Children interested in block building will delight in exploring myriad possibilities relating to gravity, force, geometry or other multi-disciplinary content, employing a variety of critical thinking skills.

The block-building center can be supplied with a variety of materials including factory produced children’s play blocks, re-purposed building materials, cardboard tubes, boxes or other miscellaneous items that the art teacher deems safe and appropriate.

Children use their imagination to develop architectural structures, fantasy landscapes, dramatic environments and many other ideas relating to places and spaces. Collaborative building projects require social interaction and communication and help children develop both language and interpersonal skills.

Non-scientific research conducted by Eric Kandel reveal that sensory based learning experiences are critical in the acquisition of learning new content, skills and memory formation. Touching, moving, viewing and organizing block forms in real time, in real space, can be a compelling learning experience.

Block play enthralled Frank Lloyd Wright and Frank Gehry. A block center in the art studio is a natural place for children to learn about art and building design in the tradition of these architects and other 3-D thinkers who studied form and function through creative building.

Clyde Gaw has been teaching art since 1984. He is the advocacy advisor for the Art Education Association of Indiana and has been a member of Teaching for Artistic Behavior since 2004. You can visit Clyde’s choice-based art education blog here: www.clydegaw.blogspot.com.