## Have a "Square Corner Day" with Kinderlogo!

by Dorothy Fitch, Kinderlogo author Director of a K–2 computer lab in Arizona

During many years of teaching K–2 students using Kinderlogo, one of the favorite activities – for both the children and their teacher – was "Square Corner Day."

Kinderlogo, a simple version of Logo for young learners, uses keystroke commands to move and turn the turtle, the graphical cursor, to draw designs. Commands are introduced in 5 levels, creating new challenges for learners as they progress.

Square Corner Day is a Level 1 activity. It uses just a few commands, but the learning experience is rich for young learners.

F makes the turtle go forward 20 steps. R makes the turtle turn right 30 degrees. L makes the turtle turn left 30 degrees. X or <Backspace> erases the last command given. N erases the picture.

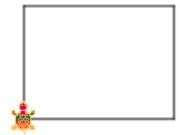
On Square Corner Day, I challenge the young learners, often Kindergartners, to draw a square.

Typically, they jump right on it, having experiment with these commands in prior classes. They type: F F R R R F F R R R F F R R R F F R R R F F R R R



Many notice that they are typing a pattern, which is important at this stage of their learning. Some notice that the number of Fs they type determine the size of the square.

Some children make a design like this, and happily tell me that they drew a square:



"Are you sure it's a square?" I ask. "Yes! It has square corners!" they tell me.

"Let's count the number of steps on each side," I suggest.

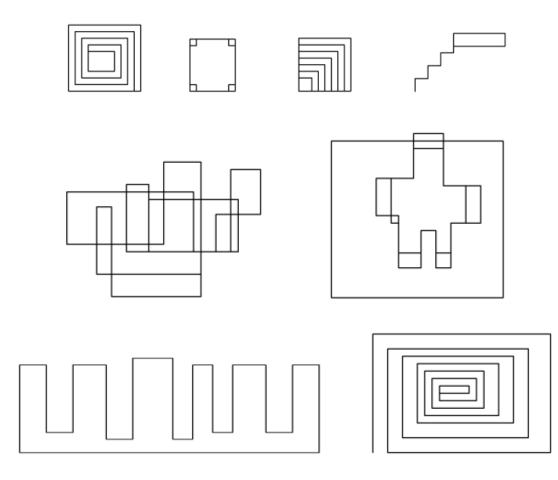
The child presses the keys as we count out loud.

1, 2, 3, turn, turn, turn, 1, 2, 3, 4 – oops! At this point they sometimes see the problem, though not always. Some are convinced it is a square even when the numbers don't match.

With these students, I have them get out of their chairs and walk around a square. We both make sure that they take the same number of steps on each side. The hands-on ("feet-on") physical movement helps reinforce the concept.

This can bring up a discussion that some savvy children will understand. A square is a special type of rectangle. Not all rectangles are squares, but all squares are rectangles.

Once the children have successfully created a square, I challenge them to create a design made up *only* of square corners! Their creations are innovative, imaginative, and intriguing.



To see even more of their Square Corner Day creations, visit: <u>https://resources.terrapinlogo.com/kinderlogo/resources/KL1-Square-Corner-Day</u>

I print out their creations to hang on the computer lab wall.

Try *Kinderlogo* for 30-days and explore squares with your young learners!