

Dear Third Grade Parent,

We had so much fun during our visit to the STEAM Lab using Lego bricks and the Lego Education LearnToLearn Curriculum. We played a game called “Block and Cover” which helped us practice spatial reasoning and strategizing. The goal was to have the most studs visible after taking turns placing bricks according to various rules. We totaled the studs using both addition and multiplication strategies. We identified that when counting the studs left visible, we were really measuring area. Since we were able to play more than once, we discussed ways to improve our strategies and graphed the results of each game. We also challenged ourselves by adding more rules to make the game harder. At the end, we discussed these questions: What strategies did we use while playing the game? Which sizes and shapes of bricks worked best and why? This lesson incorporated many standards:

Math OA1 Interpret products of whole numbers.

MD3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories.

Math MD5 Recognize area as an attribute of plane figures and understand concepts of area measurement.

Math G1 Understand that shapes in different categories may share attributes and that the shared attributes can define a larger category.

Talented and Gifted Higher Order Thinking Skills 5 The student predicts probable consequences of decisions.

Please help me brainstorm real world examples of using knowledge of area. For example, I would need to know how to measure area when buying a new carpet for my bedroom or choosing a tablecloth. More free problem-solving games that will test my skills can be found at <https://giftedandtalented.com/challenge-zone>.

With mathematical creativity,

Your young problem-solver

PS Check out the STEAM Lab website for pictures of us working and for ideas on where to find more fun projects like this one. <http://oceesteamlab.weebly.com/>