**LEGO Smart: 100 Dots**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objective:** to build a creation, that when viewed from above will show exactly 100 LEGO Dots.

**Skills:** Critical Thinking, Problem Solving, Counting to 100

**Pre-Activity:**

1. What is a “Birds-Eye-View”?
2. What strategies can you use to make this activity easier?
3. How might your final result be different from your neighbors?

**Math:**

1. How many “ones” are in 100? \_\_\_\_\_\_\_\_\_\_\_
2. How many “fives” are in 100? \_\_\_\_\_\_\_\_\_\_\_
3. How many “tens” are in 100? \_\_\_\_\_\_\_\_\_\_\_\_
4. How many different ways can you get 100?

**Directions:**

1. Build a creation, that when viewed from above, will show exactly 100 LEGO Dots. You cannot have any more or any less than 100 Dots.
2. You may be as creative as you like, but you may only use the material that is in your yellow mini simple machine set.
3. Whenever you are finished with your creation, you need to take a picture of it and paste it in the box below. Note: Picture is “Birds-Eye-View” only!

**Digital Picture:**

**Extension:**

1. How much does your creation weigh? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Discussion:**

1. What was the hardest part of this activity?
2. Did you find it difficult to keep count of all of the dots?
3. Was your creation “**Convex”** or “**Concave**”?

**CSO’s:**

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| **M.S.2.1 Number and Operations** | Through communication, representation, reasoning and proof, problem solving, and making connections within and beyond the field of mathematics, students will           demonstrate understanding of numbers, ways of representing numbers, and relationships among numbers and number systems,           demonstrate meanings of operations and how they relate to one another, and           compute fluently and make reasonable estimates. |
| **M.S.2.3 Geometry** | Through communication, representation, reasoning and proof, problem solving, and making connections within and beyond the field of mathematics, students will  ·         analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships,  ·         specify locations and describe spatial relationships using coordinate geometry and other representational systems,  ·         apply transformations and use symmetry to analyze mathematical situations, and  ·         solve problems using visualization, spatial reasoning, and geometric modeling. |