

## Core Skills Analysis

### Math

- Recognized and counted LEGO bricks, enhancing number sense and basic counting skills.
- Explored spatial reasoning by visualizing and assembling shapes and structures from individual blocks.
- Understood patterns and sequences through sorting bricks by size, color, or type during construction.
- Applied concepts of symmetry and measurement as they built balanced and proportionate LEGO models.

### Tips

To deepen mathematical understanding through LEGO building, encourage the child to create structures based on specific numeric challenges like using only a certain number of bricks or combining bricks to match particular measurements. Introduce concepts such as perimeter and area by building flat LEGO patterns or create 3D shapes to explore volume. Use LEGO bricks to demonstrate simple addition and subtraction by adding or removing pieces, and experiment with symmetry by designing mirrored constructions. Additionally, challenge the child to document their LEGO architecture with drawings or step-by-step instructions, blending math skills with communication.

### Book Recommendations

- [LEGO Play Book: Ideas to Bring Your Bricks to Life](#) by Daniel Lipkowitz: A creative guide packed with fun LEGO projects that inspire spatial thinking and problem solving.
- [Math with LEGO Bricks](#) by Sarah Dees: An engaging resource that links LEGO building to various math concepts suitable for young learners.
- [Building Patterns with LEGO Bricks](#) by Bethany Barton: A colorful introduction to recognizing and creating patterns using LEGO bricks.

### Learning Standards

- Mathematics Grade 3, Number: Demonstrate number sense by counting and sorting objects (e.g., counting LEGO bricks) [CA Math Curriculum 3.N.1]
- Mathematics Grade 3, Geometry and Spatial Sense: Identify and describe properties of 2D and 3D objects; explore symmetry and spatial relationships [CA Math Curriculum 3.G.2]
- Mathematics Grade 3, Patterns and Algebra: Recognize, describe, and extend patterns using tangible materials [CA Math Curriculum 3.P.1]

### Try This Next

- Worksheet: Create a LEGO counting chart categorizing bricks by color, shape, and size to reinforce sorting and number sense.
- Drawing Task: Sketch your LEGO creation from different angles to practice spatial visualization and symmetry.