

Binomial Cube — Pattern and Precision

Base Sheet

Activity Sheet

The child works with the Montessori binomial cube, a three-dimensional puzzle that represents $(a+b)$ cubed. At this advanced stage, the child assembles the cube with increasing speed and precision, developing visual-spatial intelligence.

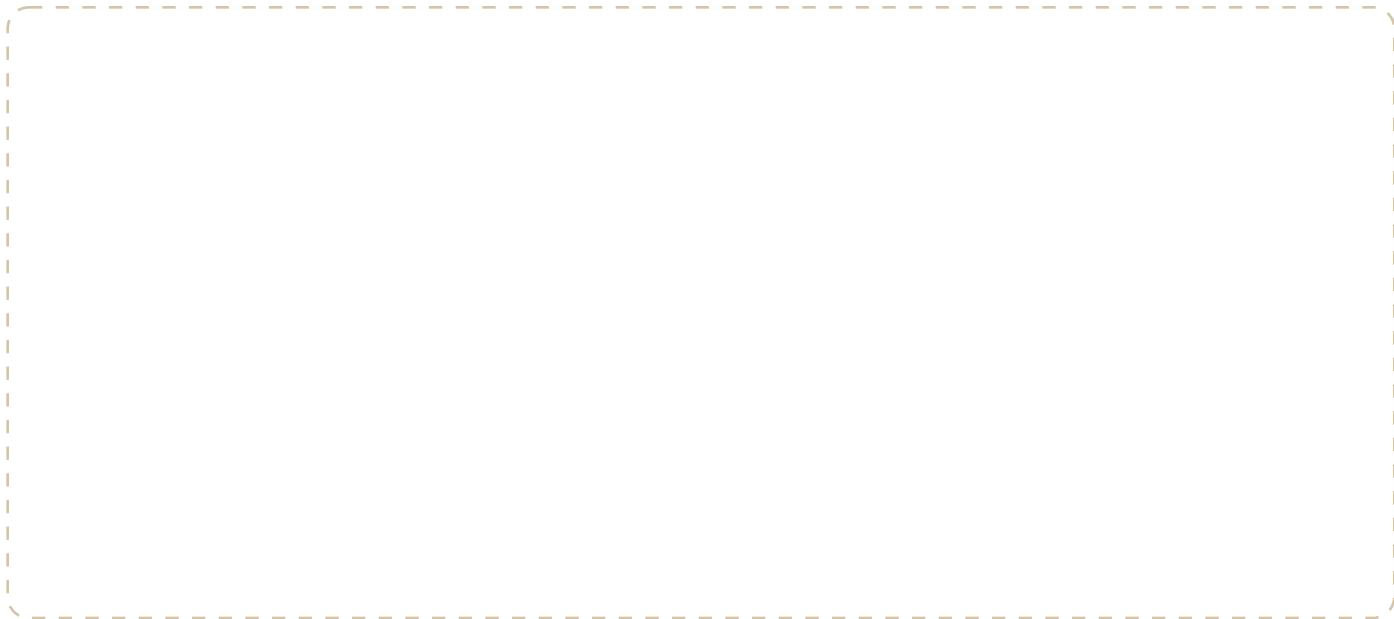
What You Need:

- Montessori binomial cube
- Work mat
- Timer (optional, for self-challenge)

Steps:

1. Present the binomial cube in its box.
2. 'You know this work well! Today let's see how precisely and smoothly you can build it.'
3. Remove all pieces from the box and mix them.
4. The child rebuilds the cube layer by layer:
 - Layer 1: red cube, 3 red-and-black prisms, and 3 red-and-blue prisms, and 1 blue cube
 - Layer 2: matching pieces to complete the cube
5. Encourage careful observation of color patterns and sizes.
6. Challenge: can the child build it outside the box?
7. If mastered, introduce building it with eyes closed (using stereognostic sense!).

Work Space:



Montessori Homeschool • Print on US Letter (8.5 x 11") • Activity sheet — print on standard paper