Lesson Plan – Building cubes

Goals:

Exercise and improve visual perception of 3D shapes, relationship between 2D and 3D objects and logical deduction skills.

Commented description of materials to be used:

Building cubes is a puzzle that uses different-sized cubes, comprised of 2-4 units, each. The pieces can be stacked on top and next to each other in different ways to build a 2 x 2 x 2 and a 3 x 3 x 3 cube.

Strategies:

After solving the 2 x 2 x 2 and 3 x 3 x 3 cubes, learners are encouraged to find as many solutions as they can. We guide learners through some basic configurations to be able to deduct the position of the L-shaped pieces.

Suggestions:

Encourage discussion on positioning, number of pieces and total number needed to complete each cube.

Appraisal / Evaluation of Students:

We use a set of different cube puzzles with different degrees of difficulty.

Assessment of lesson:

We compare the competence of the learners in completing the cubes at the beginning and the end of the lesson. Also, we qualitatively try to understand whether the learners can deduct the positioning of the units to build the cubes.

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Closure:

Overview of activity and key points, feedback from learners for further improvements and/or adjustments to be made.

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