Build It
Everyone Gives Information

Supplies: envelopes with Build It clue cards
          a set of 2 cm cubes (2 each of red, yellow, orange, blue, purple, green)
          2 blank puzzle sheets
          isometric dot paper

Your group’s goal is to build structures described in the clue cards.

Open one envelope and pass all the clues out to members of the group. Each of you, may look at your own clue(s) and tell your group what it says, but do not show the cards to anyone else. Build it! When the group is done, review your clues to make sure that you really are finished. Record your solution on isometric dot paper.

Try a different puzzle envelope using the same rules.

Discuss the following questions:

How did your group know that you had solved the puzzles?

What mathematics concepts did your group have to be familiar with to solve Build-It-type puzzles?

Adapted, with permission, from Get It Together, © 1989 The Regents of the University of California. Program for Complex Instruction — Stanford University.
There are six blocks in all. One of the blocks is yellow.

The two red blocks do not touch each other.

Each red block shares an edge with the yellow block.

The green block shares one face with each of the other five blocks.

The two blue blocks do not touch each other.

Each blue block shares one edge with each of the red blocks.
There are six blocks in all, in a tower six blocks high. There is a yellow block on top.

The red block is above the green block.

One of the yellows is above the green block; the other is below it.

Each of the blue blocks shares a face with the green block.

No two blocks of the same color touch each other.

There are two yellows, two blues, one green, and one red in the set of blocks.
There is a red block directly below a yellow block. There is a green block on the bottom level.

There is a red block directly on top of a yellow block. The highest block is on the third level.

There are six blocks in all. An orange block shares a face with a green block and two others.

A blue block shares a face with a yellow block. There is a red block on the bottom level.

A blue block touches red and green blocks only along edges. There are three blocks on the bottom level.

A yellow block touches an orange block only along an edge.
Build It #4

Build It # 4
Special Rule: You may only touch the orange block.
Each yellow block is above a red block; every red block shares an edge with the blue block.

Build It # 4
The blue block is the only one you are allowed to touch.
Your clue: the green block shares a face with one of the two yellow blocks.

Build It # 4
You may only touch the red block.
The highest blocks (neither of which are blue) are on the third level.

Build It # 4
Special Rule: You may only touch yellow blocks.
The one red block shares a face with the orange block.

Build It # 4
The green block is the only one that you are allowed to touch.
The blue block shares a face with the orange block and two others.

For the teacher:
Note that each player can touch only one color of block; if you don't use the optional clue, no one can touch red. That's intentional!
Minimum blocks: One blue, green, orange, red; two yellows.
Build It Between

The green cube is between the orange cube and the yellow cube.
Build this row of six cubes!

Build It Between

The red cube is between the purple cube and the green cube.
Build this row of six cubes!

Build It Between

The orange cube is between the green cube and the yellow cube.
Build this row of six cubes!

Build It Between

The blue cube is between the green cube and the red cube.
Build this row of six cubes!

Build It Between

The yellow and the purple cubes are not between any cubes.
Build this row of six cubes!

Build It Between

Every cube is a different color from the others.
Build this row of six cubes!