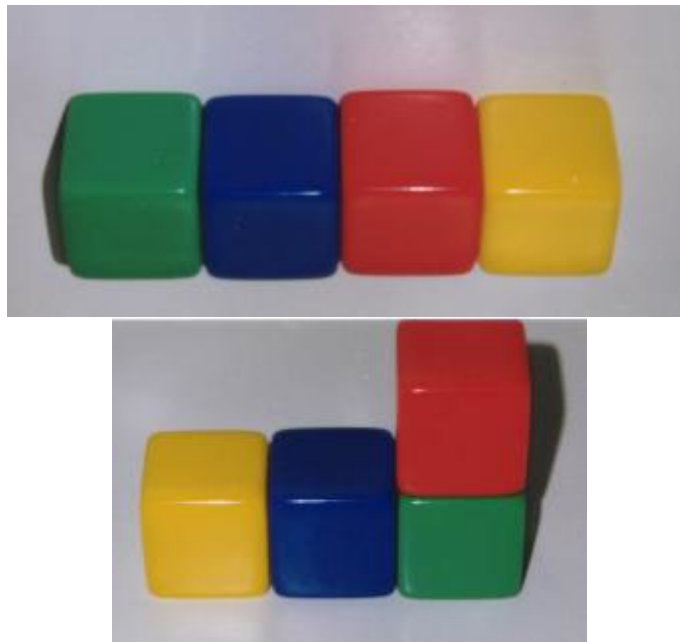


Flashing Cubes

This activity needs lots of attention. It helps you to see more in one look using patterns of cubes that are shown to you very quickly. You will also have to remember where cubes are located relative to each other, such as, whether one is in front of another, beside another, or on top of another. At home you can use Lego Duplo blocks for this activity. You only need the square blocks, but you will need at least 12 blocks, preferably in 6 different colours.

Step 1. 4 cubes in a row

Your helper will give you 6 blocks, each one a different colour. Your helper also has 6 blocks, the same colours as you. They will now make a pattern using only 4 of their blocks, but it will be hidden behind a piece of cardboard. The pattern will be 4 blocks in a row, going from side to side, or 3 blocks in a row with fourth block on top of one of the others.



Your helper will now very quickly lift up the cardboard (so you see their blocks) then put it back down again. They should only show you their blocks for less than 1/2 a second.

You have to look at their blocks and remember the pattern you saw. Now try to make yours in the same pattern. This will be very difficult to do at first and it will be likely that your pattern will not be the same. If it is not the same, your helper

will say '***I don't agree***' and your blocks will be pushed aside, destroying your pattern. Your helper keeps showing you their pattern very quickly, allowing you to try to match it, but destroying yours if it is not correct. Continue, until your pattern is the same as theirs. Then they will show you their pattern for you to check.

Notes for helpers:

If there is some difficulty with this activity at first, increase the exposure time to about 1 second - lift your cardboard up and back down more slowly. As performance improves, go faster, so the exposure time is much less. You can also try to distract them by talking etc... As you expose the blocks - a major part of this activity is attention. If they think their pattern is the same as yours, but it isn't, say 'I don't agree' and keep rapidly exposing your pattern until it is matched.

Your goal is to match every pattern exactly.

Step 2. 4 cubes, some closer, or further away

Now your helper will use patterns such as the one shown here.



Their pattern will have 4 blocks in a row but one of the blocks will be closer, or further away than the others. Your helper will again show you their pattern very quickly, several times until you are sure you can match theirs.

Notes for helpers:

The easiest patterns are ones with $\frac{1}{2}$ of one block touching $\frac{1}{2}$ of the block next to it. More difficult patterns have one block positioned so $\frac{1}{3}$ or $\frac{1}{4}$ of the block is touching the block next to it.

Now try patterns where 2, 3, or all the blocks are staggered so that the whole side of each block does not touch the block next to it. Start with patterns where 2 blocks are closer or further than the other 2, then progress to patterns such as

Visual Thinking 2

like the one below where each block is in a different relative position to every other block. The pattern must be matched exactly.



Your goal is to match every pattern exactly.

Step 3. 4 cubes, with a hole

Now your helper will use patterns such as the ones shown here. Their pattern will have a hole or an open space between some of the blocks. Your helper will again show you their pattern very quickly, several times until you are sure you can match theirs.



Your goal is to match every pattern exactly.

Step 4. 4 cubes in a row, tilted

Now one or more of the cubes will be tilted, like those in the patterns shown below. Start with one or two blocks tilted, but in a row, or one on top of the others. Your helper will again show you their pattern very quickly, several times

Visual Thinking 2

until you are sure you can match theirs. When these can be matched, one or two blocks can be placed closer than the others. Then finally use patterns that have a pocket or hole formed by the edges of the blocks.

