## The Beadery ${ }^{\circ}$ Logic Puzzles 2

## Materials Needed:

- Round Organizer Box
- Jumbo Beads


## Background:

Logic puzzles are a fun way
 to practice your problem solving, critical thinking and organizational skills. Using our Round Organizer Box and 25 mm jumbo beads, we have set up a series of puzzles that are good for more advanced kids to work out. If you are a beginner, you might want to start with the original Logic Puzzle project available on our website.

## Tips:

- The Round Organizer box (2180) gives you a 6 compartment circular configuration that allows you to rotate it. So, if you need to reorient the colors based on later clues, you can easily do that.
- All of the puzzle clues are based on color, not shape, so the different shapes in the mixes will not affect the solutions.
- The solution does not depend on the order of the clues. You may apply the clues in any sequence you like.
- Each of the jumbo bead mixes available online - opaque (1590SV076), transparent (1590SVO29) and pearl (1590SV110) - have all six colors needed to complete the puzzles.


## Useful Terms - Colors:

Primary colors: red, yellow, blue
Secondary colors: orange, green, purple

Warm colors: red, orange, yellow
Cool colors: green, blue, purple


## Useful Terms - Locations:



Adjacent: in a compartment immediately to one side or the other

Opposite: three compartments away on the other side of the circle

Between: having one compartment on each side

## Instructions:

The instructions for these puzzles are relatively simple. Each puzzle will have a set of clues. Just read the clues and arrange the beads in the correct box compartments.

## Example:

## Clues:

1. Yellow is between two secondary colors.
2. Purple is opposite yellow.
3. Red is on top.
4. Blue is between two cool colors.
5. Orange is on the right.

From the first clue, we know that there are six possible layouts with yellow between secondary colors. Since no location has been specified, you can start with yellow in any position around the circle. Wherever you place the yellow, the box can be rotated to match one of the following layouts:


Since purple is opposite yellow, we know that it is not one of the secondary colors from clue 1 , leaving only the following possibilities:


Red has not been used yet, so it must go in one of the empty spots and then the box can be rotated to place red on the top position leaving these four possibilities:


Blue is between two cool colors, so we know it is not adjacent to the orange bead. This eliminates two more layouts:


The final clue places the orange bead on the right side of the box, leaving only one possible solution:


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The first few puzzles will be a little simpler to help you get started. The solutions only use three colors and have empty compartments.

## Puzzle \#1:

Clues:

1. No two colors are adjacent to each other.
2. Only the three warm colors are used.
3. Red is in the bottom compartment.
4. Orange is on the left.

## Puzzle \#2:

Clues:

1. Only the three primary colors are used
2. Yellow is in the top compartment.
3. Red is adjacent to yellow.
4. Blue is opposite red.
5. Blue is on the right.

Now that you have mastered the easier puzzles, we will increase the difficulty by adding more beads to the puzzles. The solutions for the next group of puzzles will have one of each color bead and only one bead in each of the six compartments.

## Puzzle \#3:

Clues:

1. Green is between two secondary colors.
2. Yellow is between two warm colors.
3. Blue is on the bottom.
4. Purple is on the left.

## Puzzle \#4:

Clues:

1. Orange is between two primary colors.
2. Blue is between two warm colors.
3. Red is in the top compartment.
4. Purple is opposite blue and adjacent to red.
5. Green is on the right.

## Puzzle \#5:

Clues:

1. Green is between the two colors that make it.
2. Yellow is not adjacent to another primary color.
3. Red is between a primary and a secondary color.
4. Orange is on the bottom opposite green.
5. Red is on the right.

## Puzzle \#6:

Clues:

1. Blue is opposite orange.
2. Yellow is between two primary colors.
3. Green is on the right side adjacent to one of the primary colors used to make it.
4. Purple is on the right.
5. Orange is on the bottom.

## Puzzle \#7:

Clues:

1. Blue is not adjacent to another primary color.
2. Green is opposite another secondary and between the two primary colors that are used to make it.
3. Secondary colors are on both the top and the bottom.
4. Red is adjacent to the secondary color at the bottom and is used to make it.
5. Orange is on the right.

## Puzzle \#8:

Clues:

1. Primary colors are at the top and bottom and yellow is on the right.
2. No secondary color is between the two primary colors that make it.
3. Blue is on the top between a secondary color that is made from it and another primary color.
4. Orange is opposite another secondary color.
5. Purple is on the right.

These last few puzzles are a little more challenging. The solution may not use all six bead colors, and some compartments might be empty or they might contain more than one color bead.

## Puzzle \#9:

Clues:

1. There are two primary colors in one of the compartments on the right.
2. No beads are in compartments adjacent to other beads.
3. Green is in a compartment with a primary color that is not used to make it.
4. The bottom compartment has two secondary colors that are both made using red.

## Puzzle \#10:

Clues:

1. Orange is opposite an empty compartment.
2. Yellow is not adjacent to a secondary color.
3. Green is at the top with another secondary color.
4. Purple is on the left adjacent to a primary that is used to make it.
5. Red is adjacent to one color, blue is adjacent to three colors and they are opposite each other.

## Puzzle \#11:

Clues:

1. Each compartment has no more than one color.
2. The top and bottom compartments contain only primary colors.
3. No secondary color is adjacent to a primary color.
4. The top compartment contains no warm colors.
5. Red is not used.

## Puzzle \#12:

Clues:

1. No compartment contains both a primary and a secondary color.
2. All warm colors are on the right.
3. All primary colors are opposite at least one secondary color.
4. Blue is adjacent to the bottom.
5. All colors are used.

## The Beadery ${ }^{\circ}$ Logic Puzzle Solutions



Puzzle \#2



Fun Craft Ideas from

Puzzle \#7


Puzzle \#9


Puzzle \#11


Puzzle \#8


Puzzle \#10


Puzzle \#12


