

Kaleidoscope

A kaleidoscope is a tube of mirrors containing loose, colored objects such as beads and pebbles. The viewer looks in one end and light enters the other end reflecting off the mirrors.

Objective: The main objective to this lesson is to duplicate a symmetrical design that mimics that of the mirrors inside the "tube-shaped optical instrument," called a Kaleidoscope. The student may use a photograph of themselves, them with a family member, one with a pet or one with a friend to create their own kaleidoscope pattern. The student will utilize some basic In-Design techniques to increase or decrease the picture size proportionately while building their skills altering the position through rotating and horizontal and vertical flipping. Moving the images properly insures no lines between the photographs and all edges align.

Materials and Supplies: Computer, Adobe In-Design program, flash drive, printer paper, printers, digital photos, film pictures, scanner

Size: 8 $\frac{1}{2}$ x 11



Process:

1. Open the Adobe In-design program and change the ruler units to inches. This is done by right clicking the vertical and horizontal ruler bars and changing the units to inches.
2. Divide the page horizontally and vertically into exactly 4 equal quadrants. To achieve this, click and hold on the horizontal ruler and drag a guideline to 5.5". Now click and hold on the vertical ruler and drag the guide to 4.25".
3. Click on the File menu and select PLACE. Place the picture that is attached to your cursor in the top left corner of the page. Click the mouse so the photo is placed into the page. Using the Free Transform tool from the tool bar, and holding the shift key, reduce or increase the size of the picture to fit the top left quadrant. You will want to resize the image so it touches the top and the bottom line of that top quadrant. Now choose the selection tool and move the left and right side of the photo even with the left and right edge of the quadrant.
4. Select the photo using the selection tool and copy (ctrl c) the photo. Paste (ctrl V) the photo and move to next available quadrant. Do this until all four boxes are filled.
5. At this point we are altering the orientation of the photo using one of the following methods.
 - These include:
 - Flip Horizontally
 - Flip vertically
6. Once all four pictures are placed we will nudge the photos. This means to move the photos closer together to eliminate white edges. Select the Zoom Tool and zoom into the photo. Using the arrow keys on the keyboard move the pictures to align the edges.

InDesign short cut keys

Ctrl V= paste	Ctrl P= print
Ctrl Z = undo	Ctrl X= cut
Ctrl C = copy	Ctrl A= select all

