Chapter  3. Working with Text

* Using the Text Tool
  + To create a single line of text for use as a graphic element
    - Press “T” key to select text tool
    - Click where you want the text to start
    - Flash will resize field width-wise to accommodate entered text
    - To finish click anywhere on the stage or work area or change tools
      * Note: when entering text in a text field you cannot change tools with shortcut keys, as “v” key will type the letter “v” in a text field with focus
  + To create a text field with set width and word wrap
    - Create text field same as before, or select an existing text field
    - MouseOver any of the resize handles and note the cursor change to a double-sided arrow
    - Click and drag the handle to the desired width
      * Note: the handle in the upper right corner of the text field will change to a square from a circle
    - Text entered into the text field will now wrap to the set width
      * Note the text field will now grow longer (not wider) to accommodate text.
  + Tips
    - Reposition text field while text tool is active by moving pointer near bounding box edge. When cursor changes to selection arrow, can drag and drop
    - Double-click square handle in upper right hand corner to revert text field to default state (single line, no wrap)
* Setting Text Attributes
  + Context sensitive Properties tab of the Property Inspector contains most every text property available.
    - Open with Window > Properties > Properties or Ctrl + F3
    - Tip: can also use “Text” menu for font, size, style, paragraph alignment, and tracking.
  + To select text to apply character attributes
    - With text tool click and drag for portion, double-click for all
    - With selection tool active, click text field to select all text.
  + To choose an installed font
    - Select the text you want to modify
    - Use font dropdown in text properties tab of property inspector (can also type the font name when highlighted)
    - Or go Text > Font on menu bar for Illustrator style selection
    - Text Properties tab font drop down always displays selected font.
    - Device fonts – don’t compile, don’t allow precise control of type rendering – user’s system chooses closest match.
  + To set font size
    - Select text
    - Double click or click and drag font size field, then type value and press enter OR
    - Click and drag drop down to change size in real time. Limited from 8pt to 96pt
    - Also Text > Size in menu bar
  + To set the font rendering method
    - Select the text field
    - Text tab of property inspector
      * Device fonts
        + Use when file size is more important than visual
        + Discuss device fonts (\_serif, \_sans serif, \_typewriter)
      * bitmap text (no anti-alias)
        + use this when you want hard-edged text (fff)
        + Discuss anti-aliasing in concept
        + Discuss FlashType – font rendering engine for Flash 8 and later

Antialiasing large fonts makes them easier to read, but makes small fonts fuzzy

Allows you to have small yet readable fonts, provided the text field is not animated

* + - * anti-alias for animation
        + use this when using animated text fields
        + or when targeting Flash 7 and earlier
        + FlashType does not render
      * anti-alias for readability
        + Default for setting for Flash 8 and later
        + Use when not animating text field
        + FlashType does rendering
      * custom anti-alias”
        + Use this when you want precise control over font rendering (almost never)
        + Sharpness and Thickness control the transitional blurred area between each letter and the background
  + To choose a text color
    - Select text field
    - In Text Properties tab select the Text (fill) color
      * In Flash, text color is a type of fill
      * Can use any of the fill changing methods discussed in CH 2 to change the text color.
    - Text (Tool) Properties tab is smart and retains settings of each field
  + To choose a style
    - Select text field
    - Select bold button, italic button or combination
    - Also can use Shift + Command + B (Ctrl + Shift for Windows) for bold or Ctrl + Shift + I (Ctrl + Shift for Windows) for italics.
    - Note the use of the “Shift”key
  + To apply tracking
    - Select text field
    - In Text Properties tab in Letter Spacing
      * Type desired point size + press enter
      * Click and drag the slider (+/-60 max)
        + Tracking will update in real time
        + Releasing handle will confirm adjustment
    - Also use Text > Letter Spacing > Increase / Decrease from Text menu to change in 0.5 point increments
    - Also use Option + Command + Right Arrow to increase (Ctrl + Alt + Right Arrow on Windows) or Option + Command + Left Arrow to decrease (Ctrl + Alt + Left Arrow) tracking in 0.5 point increments
    - Discuss difference between tracking and kerning
      * Tracking is affects space between characters and words in an entire paragraph
      * Kerning affects spacing between a pair of letters only (for instance “Tc”)
      * Font’s often include kerning info (which Flash can read when using Auto Kerning)
      * You can manually kern in Flash by selecting two letters and changing the tracking between them
* Setting Paragraph Attributes
  + To select paragraphs to modify
    - With the text tool click within the paragraph you want to modify or
    - With the text tool click and drag to select text or
    - With the selection tool, select the text field
  + To set paragraph alignment
    - Select the paragraph you want to modify
    - Click the left, center, right or justify alignment buttons.
    - Alignment works the same when the text field is vertically oriented (left = top). Alignment buttons change to reflect orientation
    - Justify forces all lines except the last one to fill the space of the text field
    - Use Edit > Select All from the menu to select all paragraphs
  + To set margins
    - On Text (Tool) Properties tab, click Edit Format Options button (paragraph symbol). Format options Dialogue appears.
    - In Left Margin or Right Margin field enter the desired margin size.
    - Left = top , Right = bottom when text field is vertically oriented
    - Users won’t see margins except in user-editable text fields where border is visible
    - Margins can be as large as 720 pixels
  + To set a first line indent
    - In the Format Options dialogue, in the same manner as before, enter the desired value into the “Indent” field.
    - Flash calculates the indent based on the margin
  + To set line spacing
    - In the Format Options Dialogue in the Line Spacing field, use the same value entry techniques described previously to set the desired value.
    - All units of measure are based on the setting in document properties EXCEPT Line spacing, which is always based on points.
    - Negative line spacing is accepted.

Chapter  4. Modifying Simple Graphics

* Setting Selection Preferences
  + To set selection methods for the selection tools
    - Flash > Preferences (Mac) or Edit > Preferences (Windows), then select “General”
    - Shift Select – when enabled, Shift + Click to add more items to selection
    - Contact-sensitive Selection and Lasso tools – when enabled the selection outline need only touch graphic-objects, text fields, grouped shapes, or symbol instance. When disabled, the selection outline must encompass entire objects to select them. This setting has no effect on merge-shapes; a selection always defines a precise area of the merge-shape
  + Choose your own Highlight – per object type versus inherit layer color
* Making Selections
  + To make selections by clicking
    - Choose the selection tool or press “V” key
    - To select a merge-shape fill;
      * Cursor will change to selection pointer; click
      * Selection will be shown with a halftone (dot) pattern
    - To select a merge-shape stroke:
      * Cursor will change to curve pointer or corner pointer; click
      * Selection will be shown with a halftone (dot) pattern
    - To select a drawing object
      * Cursor will change to curve pointer or selection pointer; click
      * Selection will be shown with bounding box
    - To select a primitive
      * Cursor will change to selection pointer; click
      * Selection will be shown with bounding box
    - Double Clicking when selecting
      * Will select connected merge-shapes.
      * If stroke and fill are present, double-clicking a fill will select both.
      * Double-clicking a line segment will select all connected line segments.
    - To add elements to selection, Shift + click or click, based on preference setting
    - To select everything on the stage: Edit > Select All or Command + A on Mac and Ctrl + A on Windows
  + To use a contact-sensitive selection rectangle
    - Use selection tool
    - Click and drag a rectangle to draw selection
    - Any part of merge-shapes (strokes and fills) will be selected and show halftone (dot) pattern
    - Any object inside or touching the selection rectangle will be selected and show bounding box.
  + To use a non-contact-sensitive selection rectangle
    - Use selection tool
    - Click and drag rectangle to draw selection
    - Any part of merge-shapes (strokes and fills) will be selection and show halftone pattern
    - And object inside the selection rectangle will be selected and show bounding box.
  + Use the lasso tool to draw irregular selection areas
    - press L or select the lasso tool
    - Polygon mode lets you define selection area with a series of connected straight line-segments
    - Click everywhere you want a point, double click to end the polygon
  + To deselect individual items
    - Shift + Click any elements you want to remove from the selection.
    - Must use Shift + Click to deselect, irrespective of selection method.
  + To deselect everything, choose Edit > Deselect All, or press Command + Shift + A on Mac or Ctrl + Shift + A on Windows. Or click an empty part of the stage with the selection tool.
* Using the Clipboard
  + To perform basic editing operations
    - To clear choose Edit > Clear, or press Delete key
    - To cut choose Edit > Cut, or Command + X (Mac) or Ctrl + X (Windows)
    - To copy choose Edit > Copy, or Command + C (Mac) or Ctrl + C (Windows)
    - Cut or copied items are stored in the clipboard.
  + To paste the Clipboard’s contents in the center of the window
    - Edit > Paste or Command + V (Mac) or Ctrl + V (Windows)
  + To paste the Clipboard contents in their original location
    - Edit > Paste in Place or Command + Shift + V (Mac) or Ctrl + Shift + V
  + To quickly duplicate
    - Edit > Duplicate or Command + D (Mac) or Ctrl + D (Windows)
    - Also, Option + Click and Drag (Mac) or Alt + Click and Drag or Ctrl + Click and Drag (Windows)
    - Duplicate does not modify Clipboard
* Resizing Graphic Elements
  + To resize a graphic element interactively
    - Select Free Transform Tool or press Q
    - \*Optionally select Scale mode in tools (turns off skew + rotate)
    - Click + Drag handles to resize
      * Top + Bottom resize Height
      * Left and Right resize Width
      * Corner handles do both
    - Graphic Elements are scaled relative to the opposite control point, Symbols are scaled relative their transformation center.
      * To invert behavior in both cases, hold Option Key (Mac) or Alt Key (Windows)
    - Can use Shift + Click and Drag to maintain aspect ratio
  + To resize an element via the transform panel
    - Open Transformation Panel with Command + T (Mac) or Ctrl + T (windows)
    - Enter desired values into text fields for height and width. Check “Constrain” to maintain aspect ratio.
    - For merge-shapes, absolute scale is maintained only while the selection remains – once deselected, the scale reverts to 100.
  + To resize an element via the property inspector
    - Set a value in ether W: or H: fields
    - Click the pad lock to maintain aspect ratio (in this mode a change in one field affect the other)
    - Info Panel works similarly but allows you to transform from registration point or transformation point.
* Positioning Graphic Elements
  + To reposition an element via the Property inspector
    - Enter a new x and/or y coordinate
    - Coordinates are relative to transform center by default (modify using free-transform tool)
  + How Flash Tracks Elements
    - Flash uses Cartesian Coordinate system
    - Each object has a bounding box (invisible or not) and its registration point is the top left corner of that bounding box.
    - Panels modify object positions differently – pay close attention
* Flipping, Rotating, and Skewing
  + To Flip a graphic element
    - Modify > Transform > Flip Vertical (like a rolodex)
    - Modify > Transform Flip Horizontal (like a weathervane)
    - Use handles on free-transform tool to “fold over”
    - Can flip and scale simultaneously
  + To rotate an element in 90-degree increments
    - Modify > Transform > Rotate 90º Clockwise
    - Modify > Transform > Rotate 90º Counter Clockwise
    - Using free-transform tool
      * Option key (Mac) or Alt (windows) to rotate around opposite corner
      * Shift key to limit Rotation to 45º increments
  + To rotate an element by a user-specified amount
    - Open Transformation panel with Ctrl + T or Window > Transform
    - Enter degrees into “Rotate” field from +/- 1-360
    - Values of 360+ will be evaluated down
  + To skew an element by a user-specified amount
    - Open Transformation panel
    - Enter degrees into Skew Horizontal and Skew vertical fields
  + To rotate or skew an element interactively
    - Select free-transform tool
    - \*optionally select skew modifier (disables scale behavior)
    - Use corner handles to rotate, use side handles to skew.
    - \*Free transform tool can be used without modifiers, supports skew, rotate, and scale
  + Reset transformation
    - can be achieved at any time from Transform panel
    - For merge-shapes, rest transform works only as long as selection has not changed
* Distorting Graphic Elements
  + To distort an element freely
    - Modify > Distort or with free-transform select distort modifier. For temporary access to distort, hold Command (Mac) or Ctrl (Win) key while free-transform tool is active.
    - Note that center point disappears
    - Drag one of the corner handles to distort, side handles to skew
    - Multiple drawing objects need to be merged before distort can be used with them. Works fine for multiple merge-shapes
  + To distort a graphic element symmetrically
    - Shift + Click and Drag
* Modifying Fills and Strokes
  + To change fill color with the paint-bucket tool
    - Select paint bucket tool or press K
    - Select new fill attributes
    - Click the fill (can be selected or deselected)
  + Using Panels to change selected strokes and fills
    - Most effective way to edit stroke and fill attributes
  + To change stroke with the ink-bottle tool
    - Select Ink Bottle tool or press S key
    - Select stroke attributes
    - Click in one of the following ways
      * Directly on the stroke
      * If shape has stroke and fill and both are deselected, click fill
      * If shape has stroke and fill and both are selected, click stroke
      * If shape has stroke and fill and only fill is selected, click stroke
    - To save time, use the eyedropper tool to sample the stroke and fill from one object and apply it to another.
      * Select eyedropper tool or press I key.
      * Click the object you want sampled (Flash will “copy” the style)
      * Click on the object you want to inherit the style (cursor will change to bucket or ink bottle respectively)
      * Paint Bucket and Ink bottle will retain samples style until changed
      * If sampled incorrectly, select tool again
  + To change gradient fill’s center point
    - Select the Gradient Transform Tool
      * Click and hold on Free Transform tool for sub menu
      * Or press F key
    - Select the element who’s gradient you want to modify and click
    - Cursor will change to quad arrows. Click and Drag the center point handle (circle)
  + To change radial gradient’s focal point
    - Select in same manner as before
    - Place cursor over triangle (cursor will change to triangle) Click and drag focal point handle
  + To resize a gradient in a fill or stroke
    - Select in same manner as before
    - For uniform resize, use circle-arrow handle
    - For width resize, use square-arrow handle
  + To control overflow
    - Open Color panel (Shift + F9) or Window > Color
    - Extend
      * Extend gradient to leftmost and rightmost edges
    - Reflect
      * Repeat gradient in reverse order
    - Repeat
      * Repeat in original order
  + To rotate a gradient fill
    - Select in same manner as resize
    - Click and drag the round handle (farthest from the square handle)
    - Tip: Can apply rotations to linear gradients as they are drawn (click and drag with paint bucket)
* Modifying Shapes: Natural Drawing Tools
  + About Curve and Corner points
    - One can modify Merge-shapes with the selection tool when it’s unselected.
    - Empty cursor
    - Over selected line
    - Over unselected curve point (curve-point modifier)
    - Over unselected corner point (corner-point modifier)
  + To activate the end of a segment
    - Hover over an endpoint of a deselected line segment
    - Click and drag to move the end point.
    - This operation does not modify the straightness of a straight line segment but does modify the arc of a curved line segment.
    - Flash redraws on release (always)
  + To reshape a curve with the selection tool
    - Hover over the middle of a curve segment
    - Click and drag the curve to reshape it
    - Flash redraws the line segment on release (always)
  + To Turn a straight list segment into a curve segment with the selection tool
    - Hover the selection tool over the middle of a straight line segment
    - The curve-point modifier appears
    - Click and drag the line to reshape it
  + To create a new corner point with the selection tool
    - Hover the selection tool over the middle of a line segment
    - Option + Click (Mac) or Ctrl + Click (Windows) and drag to set a new corner point and modify the line segment
  + Fill paths
    - These same tools work to reshape the fill path of Merge-shapes as they do strokes
* Modifying Shapes Bezier Tools
  + To view a path and anchor points
    - Select the Sub Selection Tool or press the A key
    - Pointer changes to a hollow pointer
    - Click the line curve you want to modify
    - Flash highlights the path an points
    - When the Sub Selection tool is selected Command + A highlights the path and anchor points of all of the graphic elements on the stage and pasteboard.
  + To select an anchor point
    - Select the Sub Selection tool
    - Hover over an anchor point, and click the anchor point
    - Can also draw a selection rectangle to select multiples
  + To move a corner point
    - Select the Sub Selection tool
    - Click and drag a corner point
  + To move a curve point
    - Select the Sub Selection tool
    - Click and drag a curve point
  + To reshape a curve with the Bezier handles
    - With the Sub Selection tool, click the curve you want to modify
    - Click the anchor point you want to modify
    - Click and drag one of the Bezier handles
    - The pointer changes to a solid arrowhead as you drag
      * To make the cure more pronounced, drag the handle in the direction of the bulge
      * To make the curve flatter drag it the handle closer to the curve
      * To invert the curve drag the handle past the curve in the opposite direction.
      * To make the curve deeper drag away from the curve
      * To make the curve shallower, drag toward the anchor point
    - Tip: anchor points that join two curve segments have opposing Bezier handles – movement on one end affects the other end. You can affect just one handle by pressing Option (Mac) or Alt (Windows). This will convert the curve point to a corner point.
    - Tip: For quick access to Bezier handles, drag a selection rectangle with the sub selection tool
  + The Pen Tool and it’s modes
    - New Pen Tool functions in Flash CS3 that more closely mirror those of PS CS3 or ILL CS3 (add, remove, and convert anchor)
    - Create Initial Anchor point – start a line
    - Create sequential points – continue a line
    - Add anchor point – increase resolution of line
    - Convert curve point to corner point – sharpen a corner
    - Delete corner point – remove a corner
    - Extend path
    - Close path
    - Join drawing-object path
  + To convert a corner point to a curve point
    - Select the Convert anchor point tool or press C key
    - Click on and drag away from anchor point to add Bezier handles
  + To convert a curve point to a corner point
    - Select the Convert Anchor Point tool
    - Click a curve point and Flash removes the Bezier handles
    - Can also access the Convert Anchor Point temporarily when using the pen tool by holding Option (Mac) or Alt (Windows)
  + To delete an anchor point
    - Select Remove Anchor point tool or press Minus (-) key
    - Click the anchor point you want to remove
  + To add a point within a path
    - Select Add Anchor Point tool or press Equals (=) key
    - Click a line segment where you want to add an anchor point
  + To extend a path
    - Select the Pen Tool or press the P key
    - Hover over a terminal anchor point (cursor will change to pen tool with slash)
    - Click the endpoint and continue to draw the path.
* Modifying Primitive-Shape Paths
  + To change a rectangle-primitive’s properties interactively
    - Select the primitive you want to modify
    - Position cursor over one of the control points
    - Click and drag
  + To change a rectangle-primitive’s properties precisely
    - Select the rectangle primitive you want to modify
    - Access the Rectangle Primitive Properties using the Property Inspector
      * To create round corners enter positive values
      * To create indented corners enter negative values
      * Unlock constraints to set each corner uniquely
      * Can’t drag rounded to indented and visa versa
  + To change an oval-primitive’s properties interactively
    - Select the oval primitive you want to modify
    - Position the selection tool or sub selection tool over a control point and do any of the following:
      * To change the start or end angle, drag the outer control point clockwise or counter clockwise
      * To increase the inner radius drag outward
      * To decrease the inner radius drag inward
  + To change an over-primitive’s properties precisely
    - Select the oval primitive you want to modify
    - Access the oval primitive properties using the property inspector
    - Enter values for any of the settings
  + Modifying shapes with the Eraser Tool
    - Use Faucet mode to quickly erase entire fills or strokes (works on primitives where other modes of the eraser tool do not)
* Converting Shape Types
  + To convert a stroke to a fill
    - Select a stroke
    - Modify > Shape > Convert Lines to Fills
  + Text fills
    - Flash Text can be broken apart ones into individual characters
    - Must be broken apart twice to be converted into Merge-shapes
  + To convert a merge-shape or a primitive to drawing-object
    - Select a merge-shape or primitive
    - Modify > Combine Objects > Union
  + Breaking Apart
    - To convert a drawing-object or a primitive to a merge-shape
      * Select the drawing Object
      * Press Command + B (Mac) or Ctrl + B windows
    - To divide a text block into single-letter text fields
      * Select the Text field
      * Press Command + B (Mac) or Ctrl + B windows
    - To transform letters into merge-shapes
      * Select the letters
      * Press Command + B (Mac) or Ctrl + B windows

Chapter  5. Complex Graphics on a Single Layer

* How merge-shapes interact;
  + When drawing, one operation overlays the next – think of acetate sheets (like they use in old-school animation)
  + When merge-shape Lines intersect
    - One line segments another (divides the line segments further into segments)
    - Color does not affect line segmentation
  + When merge-shape lines and fills intersect
    - When a fill overlays a stroke, the fill segments the stroke and remains one solid object
    - When a stroke overlays a fill, the stroke cuts the fill, and the fill path cuts the stroke
  + When merge-shape fills intersect
    - When fills of the same color or pattern are joined, they become one merge shape.
    - When fills of different color or patterns are joined, the fills remain separate. The latter will produce a knock-out in the former
* Working with Groups
  + To create a group
    - Select items on the stage
    - Choose Modify > Group or press Command + G (Mac) or Ctrl + G (Windows)
    - If you create a group when nothing is selected, you immediate enter group drawing mode
  + To return objects to ungrouped status
    - Select a group
    - Choose Modify > Ungroup or press Command + Shift + G (Mac) or Ctrl + Shift + G (Windows)
    - Break apart (Command + B or Ctrl + B) can also be used but can produce unexpected results on groups containing a mix of shape types. **THE BOOK NOTES THIS BUT I HAVE YET TO SEE A WORKING EXAMPLE OF THIS.**
  + Preventing Interactions
    - Drawing Objects are merge-shapes but are isolated inside the drawing container, and subsequently will not interact with other shapes
    - The same goes for primitives
    - Groups also no longer interact, but are also not directly editable. Must enter group drawing mode to edit a groups contents.
    - Symbols do not interact with other shapes
    - Layers keeps shapes, symbols, and objects physically seperate
  + To prevent interaction between merge-shapes on one layer
    - Choose oval tool and enable merge drawing (normal)
    - Set stroke color to empty and fill to red
    - Draw a large oval
    - Switch to the selection tool and select the oval you just drew
    - Group the element by choosing Modify > Group (Command + G or Ctrl + G)
    - Choose the oval tool and select a different fill color
    - Draw a smaller oval in the middle of your larger oval, and notice that it immediately disappears. This is because of the Stack Order. In this case, grouped objects always stack above ungrouped objects
    - Switch to selection tool and move the large oval out of the way
    - Deselect the small oval and select the large oval
    - Group the small oval
    - The small oval is now above the large oval in the stack (being the most newly created grouped object). New items are always on top.
* Editing Groups
  + To edit the contents of a group
    - Select the group you want to edit
    - To enter group editing mode do one of the following:
      * Choose Edit > Edit Selected
      * Double click the group with the selection tool
      * Option + Click (Mac) or Right + Click (Windows) and select Edit Selected
    - Flash enters group editing mode
    - Edit normally
    - To return do one of the following:
      * Choose Edit > Edit All
      * Double-Click an empty area of the stage or pasteboard
      * Click the current scene name in the edit bar
      * Click the back button in the edit bar
  + Editing inside the drawing object container
    - Can edit similarly inside the drawing object container
    - There’s no command to enter this mode, just Double-Click the drawing object you want to edit
    - Adding new objects will yeild a group instead of a drawing object
* Controlling Stacking Order
  + Stack order
    - Merge shapes are always on the bottom on the same level in the stack.
    - All other graphic-objects stack in a new level in the stack, newest on top.
  + To change the position in a stack by one level
    - Create three graphic-objects
    - Select one of the objects
    - Do any of the following:
      * Choose Modify > Arrange > Bring Forward or press Command + Up Arrow (Mac) or Ctrl + Up Arrow (Windows)
      * Choose Modify > Arrange > Send Backward or press Command + Down Arrow (Mac) or Ctrl + Down Arrow (Windows)
    - Flash moves the selected element respectively
  + To move an element to the top of bottom of the stack
    - Select one of the objects
    - Do one of the following:
      * Choose Modify > Arrange > Bring to Front or press Option + Shift + Up Arrow (Mac) or Ctrl + Shift + Up Arrow (Windows)
      * Choose Modify > Arrange > Send to Back or press Option + Shift + Down Arrow (Mac) or Ctrl + Shift + Down Arrow (Windows)
* Combining Drawing-Objects and Primitives
  + To unite multiple drawing-objects or primitives
    - Use Object drawing mode or primitives to create overlapping shapes:
      * Make two or more overlapping fills with the same colors
      * Or make two or more overlapping shaped with fills and strokes: use different colors for the fills and strokes in each shape.
    - Select the like-color fills
    - Choose Modify > Combine Object > Union and watch them become a single drawing object
    - Select the other two shapes
    - Repeat the Union. The shapes all segment each other, but your left with a single drawing-object containing all the segmented shapes.
  + To use one drawing object to remove part of another
    - Intersect:
      * Retains fills and stokes only where all selected shapes overlap
      * Deletes all other fills and strokes
      * Resulting shapes takes style from topmost shape
    - Punch:
      * Uses topmost shape like a cookie cutter to punch a hole in the shapes
    - Crop:
      * Uses topmost shape like a cookie cutter to select a new shape from all shapes below it (the cookie itself, instead of the hole)
      * Yield does not contain the topmost shape