

# 4 Working with Selections



*Learning how to select areas of an image is of primary importance—you must first select what you want to affect. Once you've made a selection, only the area within the selection can be edited. Areas outside the selection are protected from change.*

In this lesson, you'll learn how to do the following:

- Make specific areas of an image active, using various tools.
- Reposition a selection marquee.
- Move and duplicate the contents of a selection.
- Use several keyboard-mouse combinations that save time and hand motions.
- Deselect a selection.
- Constrain the movement of a selected area.
- Adjust the position of a selected area, using the arrow keys.
- Add to and subtract from a selection.
- Rotate a selection.
- Use multiple selection tools to make a complex selection.
- Erase pixels within a selection.

This lesson will take less than an hour to complete. The lesson is designed to be done in Adobe Photoshop, but information on using similar functionality in Adobe ImageReady is included where appropriate.

If needed, remove the previous lesson folder from your hard drive, and copy the Lesson04 folder onto it. As you work on this lesson, you'll overwrite the start files. If you need to restore the start files, copy them from the *Adobe Photoshop CS Classroom in a Book* CD.

**Note:** *Windows 2000 users need to unlock the lesson files before using them. For more information, see "Copying the Classroom in a Book files" on page 3.*

## Getting started

You'll start the lesson by viewing the finished lesson file to see the image that you'll create as you explore the selection tools in Photoshop.

**1** Start Adobe Photoshop, holding down Ctrl+Alt+Shift (Windows) or Command+Option+Shift (Mac OS) to restore the default preferences. (See "Restoring default preferences" on page 4.)

As messages appear, select Yes to confirm that you want to reset preferences, No to defer setting up your color monitor, and Close to close the Welcome Screen.

**2** On the tool options bar, select the File Browser button, and use the Folders palette to navigate to and select the Lessons/Lesson04 folder on your hard disk.

**3** In the thumbnails palette, select the 04End.psd file, so that it appears in the Preview palette in the File Browser.

The project is a collage of objects, including a writing journal, a pen, globes, a number, a flower, and a padlock. The challenge in this lesson is to arrange these elements, each of which is part of a multi-image scan. The "ideal" composition is a judgment call, so this lesson won't describe precise locations. There are no "right" or "wrong" placements of the objects.

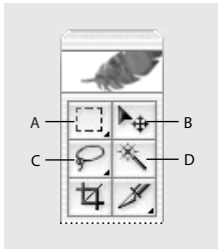


**4** Select the 04Start.psd file in the thumbnails pane, and double-click to open it.

## About selecting and selection tools





Selecting and making changes to an area within an image is a two-step process. In Photoshop, you first select the part of an image you want to change with one of the selection tools. Then, you can use another tool to make changes, such as moving the selected pixels to another location or erasing pixels within the selection. You can make selections based on size, shape, and color, using four basic sets of tools—the Marquee, Lasso, Magic Wand, and Pen tools. The selection process limits changes to within the selected area. Other areas are unaffected.




**Note:** In this lesson, you'll use only the marquee tools, lasso tools, and Magic Wand tool to make your selections. You'll learn about the pen tools in a lesson entirely devoted to them (Lesson 9, "Basic Pen Tool Techniques"). You'll also use the Move tool.





- A. Rectangular Marquee tool
- B. Move tool
- C. Lasso tool
- D. Magic Wand tool

The best selection tool for a specific area often depends on the characteristics of that area, such as shape or color. There are three categories of selections:

**Geometric selections** You use the *Rectangular Marquee tool* () to select a rectangular area in an image. The *Elliptical Marquee tool* () , which is hidden behind the Rectangular Marquee tool, selects elliptical areas. Use the *Single Row Marquee tool* () and *Single Column Marquee tool* () to select either a 1-pixel-high row or a 1-pixel-wide column, respectively.

**Freehand selections** You can drag the *Lasso tool* () around an area to trace a freehand selection. Using the *Polygonal Lasso tool* () , you can click to set anchor points in straight-line segments around an area. The *Magnetic Lasso tool* () in Photoshop works something like a combination of the other two lasso tools, and is best when there is good contrast between the area you want to select and its surroundings.

**Color-based selections** The *Magic Wand tool* () selects parts of an image based on the similarity in color of adjacent pixels. This tool is useful for selecting odd-shaped areas that share a specific range of colors.

ImageReady includes the basic marquee selection tools, the Lasso and Polygonal Lasso tools, and the Magic Wand tool. For more convenience in working with common Web shapes, ImageReady adds an extra marquee selection tool, the Rounded Rectangle Marquee tool ()


## Selecting with the Magic Wand tool

The Magic Wand tool is one of the easiest ways to make a selection. You simply click a particular colored point in the image to select areas of that color. This method is most successful for selecting an area of closely similar colors that is surrounded by areas of different color. After you make the initial selection, you can add or subtract areas by using specific keyboard combinations with the Magic Wand tool.

The Tolerance option sets the sensitivity of the Magic Wand tool. This limits or extends the range of pixel similarity, so that 32—the default tolerance—selects the color you click plus 32 lighter and 32 darker tones of that color. The ideal tolerance level depends on the color ranges and variations in the image.

### Using the Magic Wand tool to select a colored area

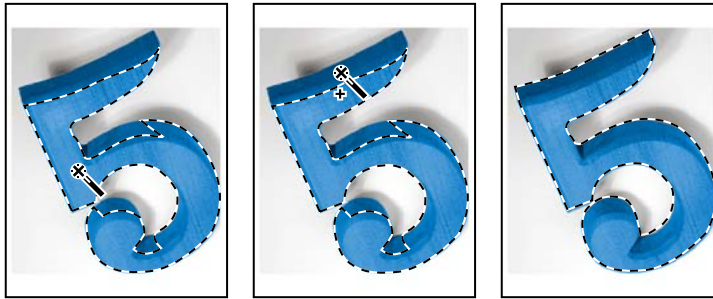
The large number “5” in the 04Start file (which should be open now) is a good candidate for using the Magic Wand tool because the entire “5” is blue and the surrounding area is a light gray shadow. For the collage you’re creating in this lesson, you’ll select and move just the number, not the shadow or background behind it.

- 1 Select the Magic Wand tool ()
- 2 In the tool options bar, scrub the Tolerance label or type **70** in the Tolerance text box to increase the number of similar tones that will be selected.



- 3 Using the Magic Wand tool, click what looks like the surface of the large number “5” image. Most of it will be selected.

4 To select the remaining area of the number “5,” hold down Shift, so that a plus sign appears with the Magic Wand tool pointer, indicating that whatever you click will be added to the current selection. Then, click one of the unselected areas of the blue number “5.”



Initial selection

Adding to selection  
(Shift key depressed)

Complete selection

**Note:** When you use other selection tools, such as a marquee tool or a lasso tool, you can also use the Shift key to add to a selection. Later in this lesson, you’ll learn how to subtract from a selection.

5 Continue adding to the selection until all the blue areas are selected. If you accidentally select an area outside the blue number, choose Edit > Undo, and try again.

Leave the selection active so that you can use it in the next procedure.

## Moving a selected area

Once you’ve selected an area of an image, any changes you make apply exclusively to the pixels within the selection marquee. The rest of the image is not affected by those changes.

When you want to move the selected image area to another part of the composition, you’ll use the Move tool. On a single-layer image like this one, the moved pixels replace the pixels beneath them. This change is not permanent until you deselect the moved pixels, so you can try different locations for the moved selection before you make a commitment.

1 If the blue “5” is not still selected, repeat the previous procedure to select it. (See “Using the Magic Wand tool to select a colored area” on page 123.)

2 Select the Move tool (⌘). Notice that the blue “5” remains selected.

- 3 Drag the selected part of the image (the “5”) to the upper left area of the collage, so that a small area of the number overlaps the border of the book.



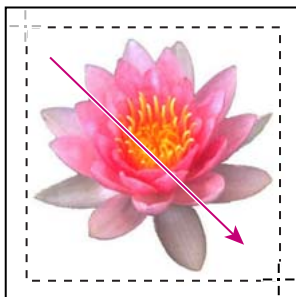
- 4 Choose Select > Deselect, and then choose File > Save.

In Photoshop, it's not easy to accidentally deselect. Unless a selection tool is active, stray clicks in the image will not deselect the active area. To deliberately deselect, you can use one of three methods: You can choose Select > Deselect, you can press Ctrl+D (Windows) or Command+D (Mac OS), or you can click outside the selection with one of the selection tools to start a different selection.

## Using the Magic Wand with other selection tools

If a multicolored area that you want to select is set against a differently colored background, it can be much easier to select the background than the area itself. In this procedure, you'll try out this neat little technique.

- 1 Select the Rectangular Marquee tool (□).
- 2 Drag a selection around the water lily. Make sure that your selection marquee is set back from the tips of the flower so that a margin of white appears between the petals and the edges of the marquee.

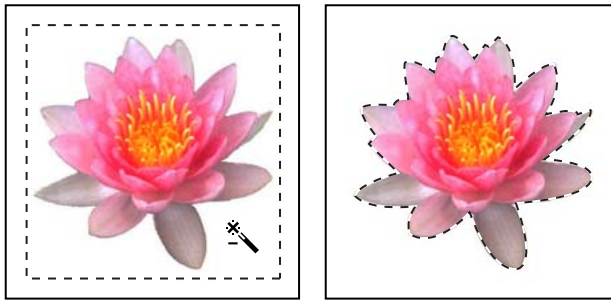


At this point, the water lily and the white background area are selected. You'll subtract the white area from the selection, so that only the water lily remains in the selection.

3 Select the Magic Wand tool; then in the tool options bar, set the Tolerance to 32, to reduce the range of colors the wand will select.

4 Hold down Alt (Windows) or Option (Mac OS), so that a minus sign appears with the magic wand pointer, and then click in the white background area within the selection marquee.

Now all the white pixels are deselected, leaving the water lily perfectly selected.



5 Select the Move tool (↻) and drag the water lily beside the book, placing it so that a few petals overlap the lower right edge of the book.

6 Choose Select > Deselect, and then save your work.

## Working with oval and circular selections

You've already had experience with the Rectangular Marquee tool, which you used to select the area surrounding the water lily image. Now you'll use a different marquee tool.



The best part about this section is the introduction of some more keyboard shortcuts that can save you time and arm motions. The repositioning techniques that you'll try here work equally well with the other marquee shapes.

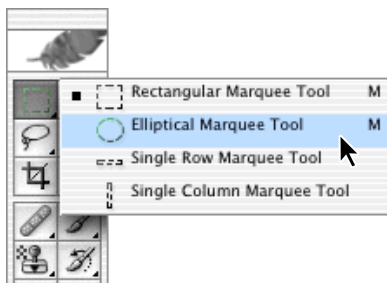


## Repositioning a selection marquee while creating it

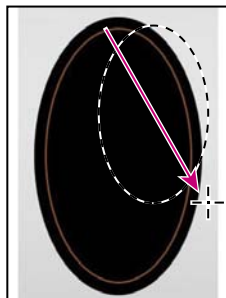
Selecting ovals and circles can be tricky. It's not always obvious where you should start dragging, so sometimes the selection will be off-center or the ratio of width to height won't match what you need. In this procedure, you'll try out techniques for managing those problems, including two important keyboard-mouse combinations that can make your Photoshop work much easier.

As you do this procedure, be very careful to follow the directions about keeping the mouse button or specific keyboard keys pressed down. If you accidentally release the mouse button at the wrong time, simply start the procedure again from Step 1.

- 1 Select the Zoom tool () , and click the black oval on the right side of the image window as needed to zoom in to at least 100% view (use 200% view if the entire oval will fit in the image window on your screen).
- 2 Select the Elliptical Marquee tool () hidden under the Rectangular Marquee tool.



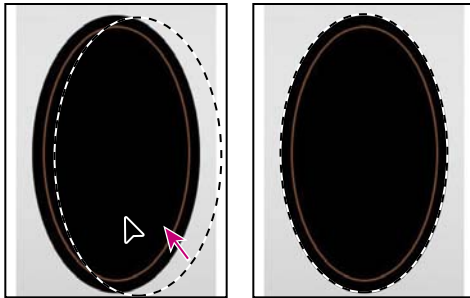
- 3 Move the pointer over the oval, and drag diagonally across the oval to create a selection, but do not release the mouse button. It's OK if your selection does not match the oval shape yet.



If you accidentally release the mouse button, draw the selection again. In most cases—including this one—the new selection replaces the previous one.

4 Still holding down the mouse button, hold down the spacebar on your keyboard and drag the selection. The border moves as you drag.

5 Carefully release the spacebar (but not the mouse button), and continue to drag, trying to make the size and shape of the selection match the oval as closely as possible. If necessary, hold down the spacebar and drag to move the selection marquee into position around the black oval.



**Note:** You do not have to include absolutely all of the black oval, but make sure that the shape of your selection has the same proportions as the oval and that the thin yellow line is contained symmetrically within the selection. As long as the selection marquee is between the yellow line and the outer edge, you're fine.

6 When the selection border is positioned and sized correctly, release the mouse button.

7 Choose View > Zoom Out or use the slider in the Navigator palette to reduce the zoom view so that you can see all of the image.

Leave the Elliptical Marquee tool (○) and the selection active for the next procedure.

## Moving selected pixels with a keyboard shortcut

Next, you'll move the black oval to the center of the book, using a keyboard shortcut. The shortcut enables you to temporarily access the Move tool instead of selecting it from the toolbox.

- 1 If the black oval is not still selected, repeat the previous procedure ("Repositioning a selection marquee while creating it" on page 127) to select it.

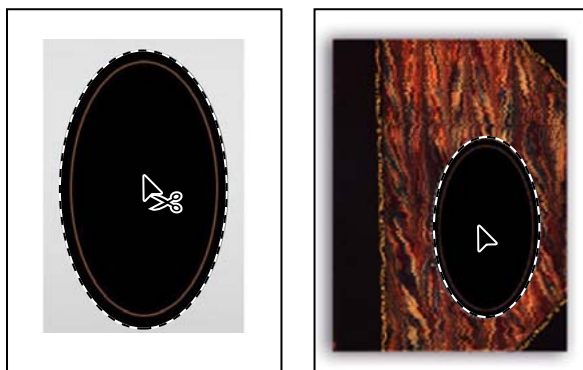
Leave the Elliptical Marquee tool (○) selected in the toolbox.

- 2 Hold down Ctrl (Windows) or Command (Mac OS), and move the Elliptical Marquee tool pointer within the selection. The pointer icon now includes a pair of scissors (✂) to indicate that the selection will be cut from its current location.

**Note:** When you use the Ctrl (Windows) or Command (Mac OS) keyboard shortcut to temporarily switch to the Move tool, you don't need to keep the keyboard key down after you start to drag. The Move tool remains active even after you release the mouse button.

Photoshop reverts back to the previously selected tool when you deselect, either by clicking outside of the selection or using the Deselect command.

- 3 Drag the oval onto the book so that it is only roughly centered. (You'll use another technique to nudge the oval into the exact position wanted.) Release the mouse button but do not deselect the black oval.





## Moving with the arrow keys

You can make minor adjustments to the position of selected pixels, using the arrow keys to nudge the oval in increments of either 1 pixel or 10 pixels.

When a selection tool is active in the toolbox, the arrow keys nudge the selection border, but not the contents. When the Move tool is active, the arrow keys move the selection border and its contents.

Before you begin, make sure that the black oval shape is still selected in the image window.

**1** In the toolbox, select the Move tool () and press the Up Arrow key () on your keyboard a few times to move the oval upward.

Notice that each time you press the arrow key, the oval moves in a 1-pixel increment. Experiment by pressing the other arrow keys to see how they affect the selection.

**2** Hold down Shift, and press an arrow key.

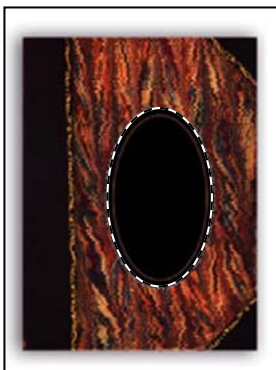
Notice that the selection now moves in 10-pixel increments.

Sometimes the border around a selected area can distract you as you make adjustments. You can hide the edges of a selection temporarily without actually deselecting and then display the selection border once you've completed the adjustments.

**3** Choose View > Show > Selection Edges or View > Extras.

Either command makes the selection border around the oval disappear.

**4** Use the arrow keys to nudge the oval until it is positioned where you want it. Then choose View > Show > Selection Edges.




**5** Choose Select > Deselect, or press Ctrl+D (Windows) or Command+D (Mac OS).

## Selecting from a center point

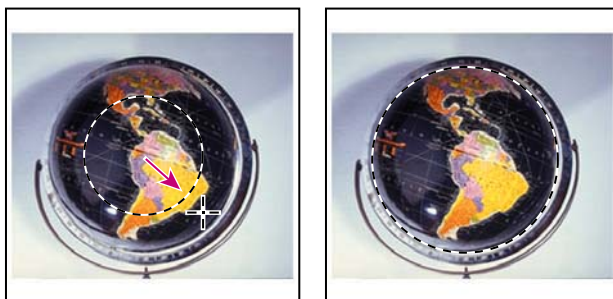
In some cases it's easier to make elliptical or rectangular selections by drawing a selection from the center point. You'll use this technique to select the globe.

- 1 If necessary, scroll to the lower left area of the image where the globe appears.
- 2 Select the Zoom tool (Q) and click the globe as needed to increase the magnification to about 300%. Make sure that you can see the entire globe in your image window.
- 3 In the toolbox, select the Elliptical Marquee tool (O).
- 4 Move the pointer to the approximate center of the globe. You can use the pivot points holding the globe and line of the equator as visual guides to help you locate the center.
- 5 Click and begin dragging. Then, without releasing the mouse button, hold down Alt (Windows) or Option (Mac OS) and continue dragging the selection to the outer edge of the globe.

Notice that the selection is centered over its starting point.

 *To ensure that your selection is a perfect circle, you can also hold down Shift as you drag. If you held down Shift while using the Rectangular Marquee tool, you'd constrain the marquee shape to a perfect square.*

- 6 When you have the entire globe selected, release the mouse button first and then release Alt or Option (and the Shift key if you used it). Do not deselect, because you'll use this selection in the next topic.



If necessary, adjust the selection border using one of the methods you learned earlier. If you accidentally released the Alt or Option key before you released the mouse button, try selecting the globe again.

## Moving and changing the pixels in a selection

Now you'll move the globe to the upper right area of the book image. Then, you'll do a completely different kind of change by altering the color of the globe for a dramatic effect.

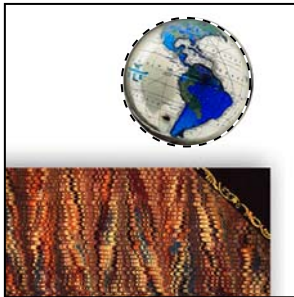
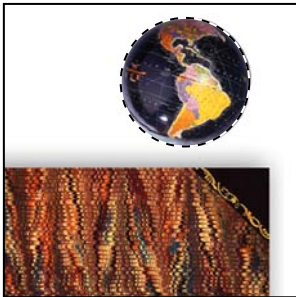
Before you begin, make sure that the globe is still selected. If it is not, reselect it, following the procedure in the previous topic. (See "Selecting from a center point" on page 131.)

- 1 Choose View > Fit On Screen to adjust the magnification so that the entire image fits within the image window.
- 2 In the toolbox, select the Move tool (⇧+V).
- 3 Position the pointer within the globe selection. The pointer becomes an arrow with a pair of scissors (⇧+V), to indicate that dragging the selection will cut it from its present location and move it to the new location.



- 4 Drag the globe over the book image to the right of center. If you want to adjust the position after you stop dragging, simply start dragging again. The globe remains selected throughout the process.

- 5 Choose Image > Adjustments > Invert.



The colors making up the globe are inverted, so that now it is effectively a color negative of itself.

**6** Leaving the globe selected, choose File > Save to save your work.

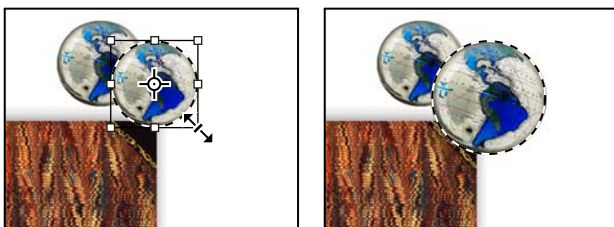
## Moving and duplicating simultaneously

Next, you'll move and duplicate a selection simultaneously. If your globe image is no longer selected, reselect it now, using the techniques you learned earlier.

- 1** With the Move tool (↻) selected, hold down Alt (Windows) or Option (Mac OS) as you position the pointer inside the globe selection. The pointer becomes a double arrow, which indicates that a duplicate will be made when you move the selection.
- 2** Continue holding down Alt or Option, and drag a duplicate of the globe down and to the right, so that it is near the upper right corner of the book image. You can allow the duplicate globe to partially overlap the original one. Release the mouse button and Alt or Option, but do not deselect the duplicate globe.



- 3** Choose Edit > Transform > Scale to activate a bounding box around the selection.
- 4** Hold down Shift and drag one of the corner points to enlarge the globe so that it is larger than the original by about half. Then, press Enter (Windows) or Return (Mac OS) to commit the change and remove the transformation bounding box.



Notice that the selection marquee also resizes and that the resized, copied globe remains selected. The Shift key constrains the proportions so that the enlarged globe is not distorted.


**5** Hold down Shift+Alt (Windows) or Shift+Option (Mac OS), and drag a new copy of the second globe down and to the right.

Holding down Shift when you move a selection constrains the movement horizontally or vertically in 45° increments.

**6** Repeat Steps 3 and 4 for the third globe, making it about twice the size of the first one.

**7** When you are satisfied with the size and position of the third globe, choose Select > Deselect, and then choose File > Save.



 For information on working with the center point in a transformation, see “Transforming objects in two dimensions” in Adobe Photoshop Help.



### **Copying selections or layers**

You can use the Move tool to copy selections as you drag them within or between images, or you can copy and move selections using the Copy, Copy Merged, Cut, and Paste commands. Dragging with the Move tool saves memory because the Clipboard is not used as it is with the Copy, Copy Merged, Cut, and Paste commands.




Photoshop and ImageReady contain several copy and paste commands:

- The Copy command copies the selected area on the active layer.
- The Copy Merged command makes a merged copy of all the visible layers in the selected area.
- The Paste command pastes a cut or copied selection into another part of the image or into another image as a new layer.
- (Photoshop) The Paste Into command pastes a cut or copied selection inside another selection in the same image or different image. The source selection is pasted onto a new layer, and the destination selection border is converted into a layer mask.

Keep in mind that when a selection or layer is pasted between images with different resolutions, the pasted data retains its pixel dimensions. This can make the pasted portion appear out of proportion to the new image. Use the Image Size command to make the source and destination images the same resolution before copying and pasting.

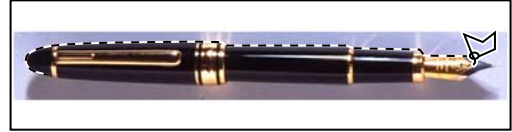
## **Selecting with the lasso tools**

You can use the lasso tools to make selections that require both freehand and straight lines. You'll select the fountain pen for the collage using the lasso tools in this way. It takes a bit of practice to use the lasso tools to alternate between straight-line and freehand selections—if you make a mistake while you're selecting the fountain pen, simply deselect and start again.

- 1 Select the Zoom tool () and click the fountain-pen image as needed until the view enlarges to 100%. Make sure that you can see the entire pen image in the window.
- 2 Select the Lasso tool (). Starting at the lower left of the image, drag around the rounded end of the fountain pen, tracing the shape as accurately as possible. Do not release the mouse button.
- 3 Hold down Alt (Windows) or Option (Mac OS), and then release the mouse button so that the lasso pointer changes to the polygonal lasso shape (). Do not release the Alt or Option key.

4 Begin clicking along the top side of the cap and barrel of the pen to place anchor points, following the contours of the fountain pen. Be sure to keep the Alt or Option key held down throughout this process.

The selection border automatically stretches like a rubber band between anchor points.

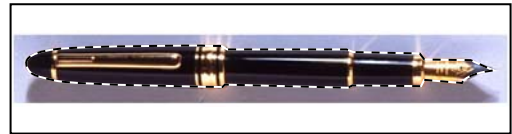
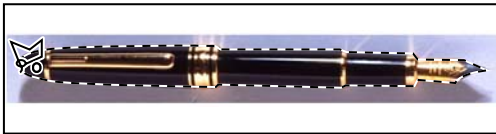


5 When you reach the curved edge of the nib, keep the mouse button held down and then release the Alt or Option key. The pointer again appears as the lasso icon.

6 Carefully drag around the nib of the pen, keeping the mouse button down.

7 When you finish tracing the nib and reach the lower side of the barrel, first hold down Alt or Option again, and then release the mouse button and start clicking along the lower side of the pen. Continue to trace the pen until you arrive back at the starting point of your selection near the left end of the image.

8 Make sure that the last straight line crosses the start of the selection, release Alt or Option, and then release the mouse button. The pen is now entirely selected. Go on to the next procedure without deselecting the fountain pen.



## Rotating a selection

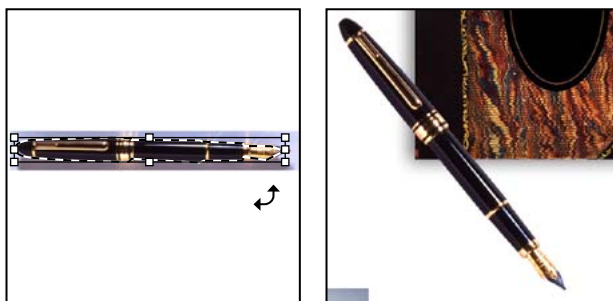
So far, you've moved selected images and inverted the color of a selected area. But there are many more things that you can do with a selection. In the following steps, you'll see how easy it is to rotate a selected object.

Before you begin, make sure that the fountain pen is selected.

1 Choose View > Fit on Screen to resize the image window to fit on your screen.

2 Hold down Ctrl (Windows) or Command (Mac OS), and drag the fountain-pen selection to the area just below and off-center to the left of the book.

- 3 Choose Edit > Transform > Rotate. The pen and selection marquee are enclosed in a bounding box and the pointer appears as a curved double-headed arrow (↻).
- 4 Move the pointer outside the bounding box and drag to rotate the pen to a jaunty angle. Then, press Enter (Windows) or Return (Mac OS) to commit the transformation changes.
- 5 If necessary, select the Move tool (↻) and drag to change the position of the pen. When you're satisfied with the pen position, choose Select > Deselect.



- 6 Choose File > Save.

## Selecting with the Magnetic Lasso tool

You can use the Magnetic Lasso tool in Photoshop to make freehand selections of areas with high-contrast edges. When you draw with the Magnetic Lasso tool, the border automatically snaps to the borders between areas of contrast. You can also control the selection path by occasionally clicking the mouse to place anchor points in the selection border. (There is no Magnetic Lasso tool in ImageReady.)

You'll now move the padlock to the center of the black oval you placed on the book cover earlier in this lesson, using the Magnetic Lasso tool to select the padlock.

- 1 Select the Zoom tool (Q), and click the padlock to zoom in to a 300% view.
- 2 Select the Magnetic Lasso tool (Lasso tool icon with a magnet), hidden under the Lasso tool (L).
- 3 Click once along the left edge of the padlock, and begin tracing the outline of the padlock by moving the magnetic lasso pointer around the outline of the padlock, staying fairly close to the edge of the padlock as you move.

Even though you're not holding down the mouse button, the tool snaps to the edge of the padlock and automatically adds fastening points.



*💡 If you think that the tool is not following the edge closely enough (such as in low-contrast areas), you can place your own fastening points in the border by clicking the mouse button. You can add as many fastening points as you feel are necessary. You can also remove the most recent fastening points by pressing Delete for each anchor point you want to remove. Then, move the mouse back to the last remaining fastening point and continue selecting.*

**4** When you reach the left side of the padlock again, double-click the mouse button to make the Magnetic Lasso tool return to the starting point, closing the selection. Or, move the Magnetic Lasso over the starting point and click once.



**5** Double-click the Hand tool (🖱️) to fit the image on-screen.

**6** Select the Move tool (🖱️), and drag the padlock to the middle of the black oval in the center of the notebook.

7 Choose Select > Deselect, and then choose File > Save.



### **Softening the edges of a selection**

*You can smooth the hard edges of a selection by anti-aliasing and by feathering.*

**Anti-aliasing** Smooths the jagged edges of a selection by softening the color transition between edge pixels and background pixels. Since only the edge pixels change, no detail is lost. Anti-aliasing is useful when cutting, copying, and pasting selections to create composite images.

Anti-aliasing is available for the Lasso, Polygonal Lasso, Magnetic Lasso tool, Rounded Rectangle Marquee (ImageReady), Elliptical Marquee, and Magic Wand tools. (Select the tool to display its tool options bar.) You must specify the anti-aliasing option before using these tools. Once a selection is made, you cannot add anti-aliasing.


**Feathering** Blurs edges by building a transition boundary between the selection and its surrounding pixels. This blurring can cause some loss of detail at the edge of the selection.


You can define feathering for the marquee, Lasso, Polygonal Lasso, and Magnetic Lasso tools as you use them, or you can add feathering to an existing selection. Feathering effects become apparent when you move, cut, or copy the selection.

- To use anti-aliasing, select the Lasso, Polygonal Lasso, Magnetic Lasso, Rounded Rectangle Marquee (ImageReady), Elliptical Marquee, or Magic Wand tool, and select Anti-aliased in the tool options bar.
- To define a feathered edge for a selection tool, select any of the lasso or marquee tools. Enter a Feather value in the options bar. This value defines the width of the feathered edge and can range from 1 to 250 pixels.
- To define a feathered edge for an existing selection, choose Select > Feather. Enter a value for the Feather Radius, and click OK.

## Cropping an image and erasing within a selection

To complete the artwork, you'll crop the image to a final size and clean up some of the background scraps left behind when you moved selections. In both Photoshop and ImageReady, you can use either the Crop tool or the Crop command to crop an image.

 *In ImageReady, use the Crop command or the Crop tool set to Hide when creating animated elements that move from off-screen into the live image area.*

1 Select the Crop tool () , or press C to switch from the current tool to the Crop tool. Then, drag diagonally across the collage composition to prepare for cropping.





2 Adjust the crop area, as necessary:


- If you need to reposition the crop border, position the pointer anywhere inside the cropping area and drag.
- If you want to resize the crop area, drag a handle.

3 When you are satisfied with the position of the crop area, press Enter (Windows) or Return (Mac OS) to crop the image.

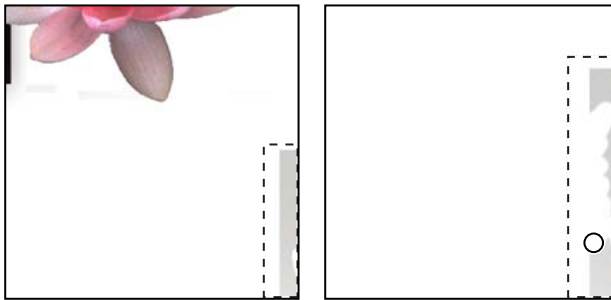
The cropped image may include some scraps of the gray background from which you selected and removed shapes. You'll fix that next.

4 Use a selection marquee tool or the Lasso tool () to drag a selection marquee around a scrap of unwanted gray background. Be careful not to include any of the image that you want to keep.

5 In the toolbox, select the Eraser tool () , and then make sure that the foreground and background color swatches in the toolbox are set to the defaults: black in the foreground and white in the background.

If the default colors are not black and white, click the Default Colors icon () in the lower left area beside the foreground and background swatches.

6 Drag the eraser over the gray in the selection area. The gray pixels are erased and replaced by the background color, white. If your erasing strays outside the selection border, nothing happens because the unselected area is protected from being changed.



 *To erase in large strokes, select a larger brush size in the tool options bar.*

7 Select another area with only unwanted pixels, and then press Delete.

Continue selecting and erasing or deleting until you finish removing all the unwanted scraps of background. When you finish, choose File > Save to save your work.

**Note:** *You don't absolutely have to select an area in order to erase. However, it's often a good idea, especially when the area that you want to erase is close to another area that you want to protect.*

The collage is complete.

## Review questions

- 1 Once you've made a selection, what area of the image can be edited?
- 2 How do you add to and subtract from a selection?
- 3 How can you move a selection while you're drawing it?
- 4 When drawing a selection with the Lasso tool, how should you finish drawing the selection to ensure that it is the shape you want?
- 5 How does the Magic Wand tool determine which areas of an image to select? What is tolerance, and how does it affect a selection?

## Review answers

- 1 Only the area within the selection can be edited.
- 2 To add to a selection, hold down Shift, and then drag or click the active selection tool on the area you want to add to the selection. To subtract from a selection, hold down Alt (Windows) or Option (Mac OS), and then drag or click the active selection tool on the area you want to remove from the selection.
- 3 Without releasing the mouse button, hold down the spacebar, and drag to reposition the selection.
- 4 To make sure that the selection is the shape you want, end the selection by dragging across the starting point of the selection. If you start and stop the selection at different points, Photoshop or ImageReady draws a straight line between the start point of the selection and the end point of the selection.
- 5 The Magic Wand tool selects adjacent pixels based on their similarity in color. The Tolerance setting determines how many color tones the Magic Wand tool will select. The higher the tolerance setting, the more tones the Magic Wand tool selects.