Working with Selections

Learning how to select areas of an image is of primary importance when working with Adobe® Photoshop® — you must first select what you want to affect. Once you've made a selection, only the area within a selection can be edited; areas outside the selection are protected from change.
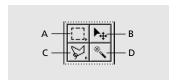
In this lesson, you'll learn how to do the following:

• Use the marquee, lasso, and magic wand tools to select parts of an image in various ways.

• Reposition a selection marquee.

• Deselect a selection.

• Move and duplicate a selection.

• Constrain the movement of a selection.

• Adjust a selection with the arrow keys.

• Add to and subtract from selections.

• Rotate, scale, and transform a selection.

• Combine selection tools.

• Crop an image.

Tool overview

In Adobe Photoshop, you can make selections based on size, shape, and color using four basic sets of tools—the marquee, lasso, magic wand, and pen tools. In addition, you can use a fifth tool, the move tool, to reposition the selections you create.

Note: In this lesson, you will use just the marquee, lasso, magic wand, and move tools; for more information on the pen tools, see Chapter 7, "Selecting," in the Adobe Photoshop User Guide.

A. Marquee Tool B. Move Tool
C. Lasso Tool D. Magic Wand Tool

The marquee and lasso tool icons contain hidden tools, which you can select by holding down the mouse button on the toolbox icon and dragging to the desired tool in the pop-up menu.

The *rectangular marquee tool* (▯) lets you select a rectangular area in an image. The *elliptical marquee tool* (◯) lets you select elliptical areas. The *single row and single column marquee tools* (⇻) (▯) let you select a 1-pixel-high row and 1-pixel-wide column. You can also use the *crop tool* (⊬) to crop an image.

The *lasso tool* (⌇) lets you make a freehand selection around an area. The *polygon lasso tool* (⌁) lets you make a straight-line selection around an area. The *magnetic lasso tool* (⌖) lets you draw a freehand border that snaps to the edges of an area.

The *magic wand tool* (⸜) lets you select parts of an image based on the similarity in color of adjacent pixels. This tool is useful for selecting odd-shaped areas without having to trace a complex outline using the lasso tool.

Getting started

Before beginning this lesson, delete the Adobe Photoshop Preferences file to restore the program's default settings. To delete the Preferences file in Windows®, exit Photoshop, and then delete the Adobe Photoshop 5 Prefs file in the Adobe Photoshop Settings subdirectory inside the Photoshop5 directory. To delete the Preferences file in Mac® OS, quit Photoshop, locate the Adobe Photoshop 5 Prefs file in the Adobe Photoshop Settings folder inside the Adobe Photoshop 5.0 folder, drag the file to the Trash, and choose Special > Empty Trash.

After you have deleted the Preferences file, restart the Photoshop program. Then open the finished art file for this lesson to see what you'll be creating.

1 Choose File > Open. Locate and open the Training\Lesson01 folder in the Adobe Photoshop 5.0 application folder or on the tutorial CD. Then select End01.psd and click Open. An image of a face, constructed using various types of fruits and vegetables, is displayed.

2 If you like, choose View > Zoom Out to make the image smaller and leave it on your screen as you work. If you don't want to leave the image open, choose File > Close.
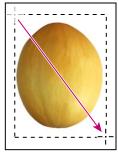
Now open the start file to begin the lesson.

3 Choose File > Open. Locate and open the Lesson01 folder, select Start01.psd, and click Open.

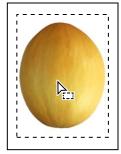4 Choose File > Save As, type the name **Work01**.psd, and click Save.

Selecting with the rectangular marquee tool

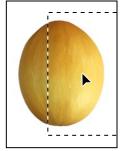You'll start by practicing selection techniques using the rectangular marquee tool.

1 Click the rectangle marquee tool (▯) in the toolbox.

2 Drag it diagonally from the top left to the bottom right corner of the melon to create a rectangular selection.

Initial selection *Marquee tool placed within selection* *Selection border repositioned*

You can move a selection border after you've created it by positioning the tool within the selection and dragging. Notice this technique changes the location of just the selection border; it does not affect the size or shape of the selection.

3 Place the marquee tool anywhere inside the selection surrounding the melon. The pointer becomes an arrow with a small selection icon next to it.

4 Drag to reposition the border around the melon.

Note: Repositioning techniques for selection borders work with any of the marquee, lasso, and magic wand tools.

If you are still not happy with the selection after repositioning it, you can deselect it and redraw it.

5 Deselect the selection by using either of these methods:

• Choose Select > Deselect.

• Click anywhere in the window outside the selection border.

6 Reselect the melon using the rectangle marquee tool.

To back up one action at any point in the lesson, choose Edit > Undo.

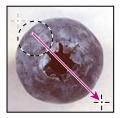## Selecting with the elliptical marquee tool

Next you'll use the elliptical marquee tool to select eyes for the face. Note that in most cases, making a new selection replaces the existing selection.
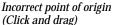
1 Select the zoom tool (🔍), and click twice on the blueberry to zoom in to a 300% view.

2 Hold down the mouse button on the rectangular marquee tool, and drag to the elliptical marquee tool (◯).

3 Move the pointer over the blueberry, and drag it diagonally from the top left to the bottom right edge of the blueberry to create a selection. Do not release the mouse button.
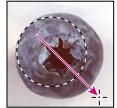
Repositioning a selection border while creating it

If a selection border isn't placed exactly where you want it, you can adjust its position and size while creating it.

1 Still holding down the mouse button, hold down the spacebar and drag the selection. The border moves as you drag.

2 Release the spacebar (but not the mouse button), and drag again. Notice that when you drag without the spacebar, the size and shape of the selection changes, but its point of origin does not.

Incorrect point of origin   *Corrected point of origin*   *Adjusted border*
(Click and drag)   *(Spacebar depressed)*   *(Spacebar released)*

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

Selecting from a center point

Sometimes it's easier to make elliptical or rectangular selections by drawing a selection from the center point of the object to the outside edge. Using this method, you'll reselect the blueberry.

1 Choose Select > Deselect.

2 Position the marquee tool at the approximate center of the blueberry.

3 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 blueberry's outer edge. Notice that the selection is centered over its starting point.

4 When you have the entire blueberry selected, release first the mouse button and then the Alt/Option key.

If necessary, adjust the selection border using one of the methods you learned earlier.

Moving a selection

Now you'll use the move tool to move the blueberry onto the carrot slice to create an eye for the face. Then you'll duplicate and move the selection to make a second eye.

1 Make sure that the blueberry is selected. Then click the move tool (⮕), and position the pointer within the blueberry's selection. The pointer becomes an arrow with a pair of scissors to indicate that dragging the selection will cut it from its present location and move it to the new location.

2 Drag the blueberry onto the carrot slice.

Move tool placed within blueberry selection

Blueberry moved onto carrot slice

3 Choose Select > Deselect.

4 Choose File > Save.

Moving and duplicating simultaneously

Next you'll move and duplicate a selection simultaneously.

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

2 Select the elliptical marquee tool.

3 Drag a selection around the carrot slice containing the blueberry. If necessary, adjust the selection border using one of the methods you learned earlier.
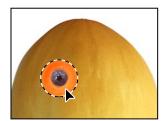
4 Click the move tool, then hold down Alt (Windows) or Option (Mac OS), and position the pointer within the selection. The pointer becomes a double arrow, which indicates that a duplicate will be made when you move the selection.
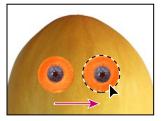

5 Continue holding down Alt/Option, and drag a duplicate of the eye onto the left side of the melon face. Release the mouse button and Alt/Option, but do not deselect the eye.

Holding down Shift when you move a selection constrains the movement horizontally or vertically. Using this technique, you'll drag a copy of the left eye to the right side of the face so that the two eyes are level.

6 Hold down Shift+Alt (Windows) or Shift+Option (Mac OS), and drag a copy of the eye to the right side of the face.

7 Choose File > Save.

Eye moved onto left side of face

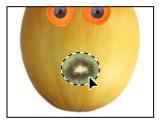*Duplicate of eye moved with Shift+Alt/Option*

Moving with a keyboard shortcut

Next you'll select the kiwi fruit for the melon's mouth and then move it onto the melon using a keyboard shortcut. The shortcut allows you to temporarily access the move tool instead of selecting it from the toolbox.

1 Select the elliptical marquee tool from the toolbox.

2 Drag a selection around the kiwi fruit using one of the methods you learned earlier.

3 With the marquee tool still selected, hold down Control (Windows) or Command (Mac OS), and position the pointer within the selection. A pair of scissors appears with the pointer to indicate the selection will be cut from its current location.

4 Drag the kiwi mouth onto the face. Do not deselect.

Selection to be cut   *Selection moved onto melon*

Moving with the arrow keys

You can make minor adjustments to the position of a selection using the arrow keys, which allow you to nudge the selection 1 pixel or 10 pixels at a time.

Note: The arrow keys adjust the position of a selection only if you've already moved the selection or if you have the move tool selected. If you try the arrow keys on a selection that has not yet been moved, they will adjust the selection border, not the part of the image that is selected.

1 Press the up (⬆) arrow key a few times to move the mouth upward. Notice that each time you press the arrow key, the mouth moves in 1-pixel increments. Experiment with the other arrow keys to see how they affect the selection.

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.

2 Choose View > Hide Edges. The selection border around the mouth disappears.

3 Now hold down Shift and press an arrow key. Notice that the selection moves in 10-pixel increments.

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

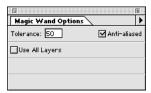**5** Choose File > Save.

Selecting with the magic wand

The magic wand tool lets you select adjacent pixels in an image based on their similarity in color. You'll use the magic wand tool to select the pear tomato, which you'll use as a nose for the face.

1 Double-click the magic wand tool (✎) in the toolbox to select the tool and display its Options palette. Notice that the Options palette has moved to the front of the Info/Navigator/Options palette group.

Note: Most tools in the toolbox come with their own Options palettes, which allow you to change the way the tools work.

In the Magic Wand Options palette, the Tolerance setting controls how many similar tones of a color are selected when you click an area. The default value is 32, indicating that 32 similar lighter tones and 32 similar darker tones will be selected.

2 For Tolerance, enter 50 to increase the number of shades that will be selected.

3 Click the magic wand tool anywhere within the pear tomato. Most of it will be selected.

4 To select the remaining area of the pear tomato, hold down Shift and click the unselected areas. Notice that a plus sign appears with the magic wand pointer indicating that you're adding to the current selection.

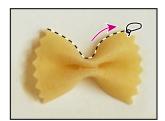*Initial selection*   *Adding to selection (Shift key depressed)*   *Complete selection*

5 When the pear tomato is completely selected, hold down Control (Windows) or Command (Mac OS), position the pointer within the selection, and drag the tomato nose onto the melon face.

6 Choose Select > Deselect.

7 Choose File > Save.

Selecting with the lasso tool

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

1 Select the zoom tool, and click twice on the bow tie pasta to enlarge its view to 300%.

2 Select the lasso tool ($\wp$). Starting at the top left corner of the bow tie pasta, drag to the right to create a freehand outline across the curves at the top of the bow tie. Continue holding down the mouse.

3 To select the right edge of the bow tie, hold down Alt (Windows) or Option (Mac OS), release the mouse button, and then begin outlining with short, straight lines by clicking along the edge. (Notice that the pointer changes from the lasso icon to the polygon lasso icon.) When you reach the bottom right corner of the bow tie, do not release the mouse button.

Freehand outline with lasso tool

Straight-line outline with polygon lasso tool

Completed selection (outline crosses starting point)

4 Release Alt/Option, and drag to the left to create a freehand outline across the bottom of the bow tie. (The pointer returns to the lasso icon.)

5 Hold down Alt/Option again, and click the mouse button along the left edge of the bow tie to draw straight lines.

6 To complete the selection, make sure that the last straight line crosses the start of the selection, release Alt/Option, and then release the mouse button.

7 Choose View > Fit on Screen to resize the document to fit on your screen.

8 Hold down Control (Windows) or Command (Mac OS), and drag the bow tie selection to the bottom of the melon face.
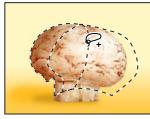
9 Choose File > Save.

Adding and subtracting selections

Holding down Shift while you are selecting an area adds to the current selection; holding down Alt (Windows) or Option (Mac OS) subtracts from the selection. You'll now use these techniques with the lasso tool to perfect a rough selection of the mushroom image. The mushroom will become a hat for the melon face.
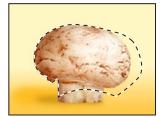
1 Select the zoom tool, and click twice on the mushroom to enlarge its view to 300%.

2 Select the lasso tool, and drag a rough outline around the mushroom (include some of the area outside the mushroom and some of the stem).

3 Hold down Shift. A plus sign appears with the lasso tool pointer.

4 Drag the lasso tool around an area you want to add to the selection; then release the mouse button. The area is added to the current selection.

Initial selection   *Adding to selection*   *Result*
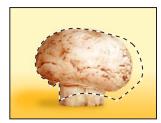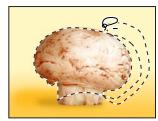   *(Shift key depressed)*

Note: If you release the mouse button while drawing a selection with the lasso tool, the selection closes itself by drawing a straight line between the starting point and the point where you release the mouse. To create a more precise border, end the selection by crossing the starting point.

Next, you'll remove, or subtract, part of the selection.

5 Hold down Alt (Windows) or Option (Mac OS). A minus sign appears with the lasso tool pointer.

6 Drag the lasso tool around an area you want to remove from the selection; then repeat the process until you've finished removing all the unwanted parts of the selection.

Selection   *Subtracting from selection*   *Result*
                             (Alt/Option depressed)

7 Choose View > Fit on Screen.

8 To move the mushroom hat onto the melon head, hold down Alt+Control (Windows) or Option+Command (Mac OS), and drag a copy of the mushroom to the top of the melon.

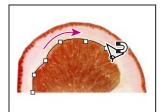**9** Choose File > Save.

Selecting with the magnetic lasso

You can use the magnetic lasso tool to make freehand selections of areas with high contrast edges. When you draw with the magnetic lasso, the border automatically snaps to the edge you are tracing. You can also control the direction of the tool's path by clicking the mouse to place occasional fastening points in the selection border.

You'll now make an ear for the melon face by using the magnetic lasso to select the red part of the grapefruit slice.
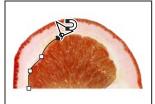
1 Select the zoom tool, and click the grapefruit slice to zoom in to a 200% view.

2 Hold down the mouse button on the lasso tool in the toolbox, and drag to the magnetic lasso tool (🪢) to select it.

3 Now click once at the lower left corner of the red flesh of the grapefruit slice, release the mouse button, and begin tracing the outline of the flesh by dragging to the right over the curved upper edge. Notice that the tool snaps to the edge and automatically puts in fastening points.

If you think the tool is not following the edge closely enough (in low contrast areas), you can place your own fastening point in the border by clicking the mouse button. You can add as many fastening points as you feel necessary. You can also remove fastening points and back up in the path by pressing the Delete key and moving the mouse back to the last remaining fastening point.

4 When you reach the lower right corner of the grapefruit flesh, double-click the mouse button, which signals the magnetic lasso tool to return to the starting point and close the selection. Notice that the tool automatically follows the remaining edge of the flesh as it completes the border.

Laying down fastening points *Removing fastening points* *Double-clicking at corner to close path*

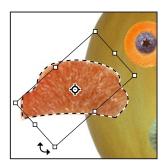You can now move the selected part of the grapefruit next to the melon.

5 Double-click the hand tool (✋) to fit the image on screen.

6 Click the move tool, and drag the grapefruit ear to the middle of the left side of the melon face. Do not deselect.
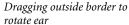
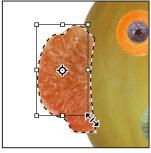**7** Choose File > Save.

Transforming a selection

Next you'll use the Free Transform command to rotate and scale the melon's left ear, and then you'll duplicate and flip a copy to create a right ear.

1 Choose Edit > Free Transform. A bounding box appears around the ear selection.

2 To rotate the ear, position the pointer outside a corner handle until you see a double-headed arrow, and then drag in the direction you want the ear to rotate. Notice that the ear rotates around the selection's center point (⊕).

3 To scale the ear, position the pointer directly on one of the corner handles, and drag to reduce the size of the ear. To scale the ear proportionately, hold down Shift as you drag.

4 To reposition the ear, place your pointer within the bounding box, but not on the center point, and drag.
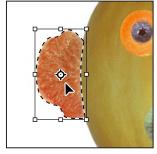
Note: If you place the pointer on the center point and drag, you will move the center point. For more information on working with the center point in a transformation, see Chapter 8,"Editing and Retouching," in the Adobe Photoshop User Guide.

Dragging outside border to rotate ear   *Dragging on corner to scale ear*   *Dragging within border to reposition ear*

 ♀ *If you don't like the results of a Free Transform, press Escape and start over.*

5 When you have the ear positioned correctly, press Enter (Windows) or Return (Mac OS) to apply the transformation. The ear remains selected.

You will now move a copy of the ear to the right side of the face, flip the ear horizontally, and fine-tune its placement.

6 Position the pointer within the ear selection, hold down Shift+Alt (Windows) or Shift+Option (Mac OS), and drag a copy of the ear to the right side of the face.

7 Choose Edit > Transform > Flip Horizontal.

8 If necessary, place the pointer within the selection, and drag to reposition it next to the melon face.

9 If necessary, choose Edit > Free Transform, rotate the ear to fit the right side of the face, and press Enter (Windows) or Return (Mac OS) to complete the transformation.

10 Choose File > Save.
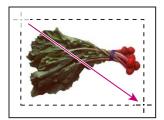
Combining selection tools

As you already know, the magic wand tool makes selections based on color. If an object you want to select is on a solid-colored background, it can be much easier to select the object and the background and then use the magic wand tool to subtract the background color, leaving the desired object selected.

You'll see how this works by using the rectangular marquee tool and the magic wand tool to select radish eyebrows for the face.
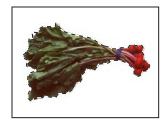
1 Hold down the mouse button on the elliptical marquee tool, and drag to the rectangular marquee tool.

2 Drag a selection around the radishes. Notice that some of the white background is included in the selection.

At this point, the radishes and the white background area are selected. You'll subtract the white area from the selection, resulting in only the radishes being selected.

3 Click the magic wand tool in the toolbox; then hold down Alt (Windows) or Option (Mac OS). A minus sign appears with the magic wand pointer.

4 Click anywhere in the white area surrounding the radishes. Now only the radishes are selected.

Initial selection   *Subtracting from selection with Alt/Option magic wand*   *Result*

5 To duplicate and move the radish eyebrow to the melon face, hold down Alt+Control (Windows) or Option+Command (Mac OS), and drag the radish above the left eye on the melon face. Do not deselect.

Left eyebrow placed with Alt+Control/Option+ Command   *Right eyebrow placed with Shift+Alt+Control/ Shift+Option+Command*   *Right eyebrow flipped horizontally*
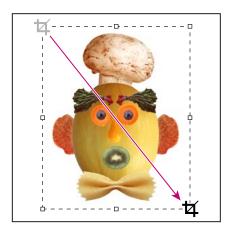
6 Hold down Shift+Alt+Control/Shift+Option+Command, position the pointer within the selection, and drag to duplicate and reposition another eyebrow above the right eye.

7 Choose Edit > Transform > Flip Horizontal to adjust the right eyebrow. If you like, reposition the eyebrow using any of the methods you've learned.

8 Choose File > Save.

Cropping the completed image

To complete the artwork, you'll crop the image to a final size.

1 Choose the crop tool (⊏⊐) from the toolbox. The crop tool is located in the hidden tools palette under the marquee tool.

2 Move the pointer into the image window, and drag diagonally from the top left to the bottom right corner of the completed artwork to create a crop marquee.

3 If you need to reposition the crop marquee, position the pointer anywhere inside the marquee and drag.

4 If you want to resize the marquee, drag a handle.

5 When the marquee is positioned where you want it, press Enter (Windows) or Return (Mac OS) to crop the image.

6 Choose File > Save.

The fruit-and-vegetable face is complete.