

Teaching Notes

These teaching notes were originally developed for computer classes at Durbar High School in Kathmandu, Nepal, using Windows 95 and Office 95. Since then they have been rewritten for Office 97 and extended. Lesson plans have also been developed for some topics to help Cambodian teachers prepare their lessons.

We wrote the notes for our own use so that we have a clear picture of what we will be teaching. They are not really students' notes, though we do encourage students to read them on the computer *after* lessons and to practise the exercises again.

We offer them freely for use by non-profit organisations in the spirit of co-operation. The copyright notice must be left intact on all the pages and modified versions of the documents must not be redistributed.

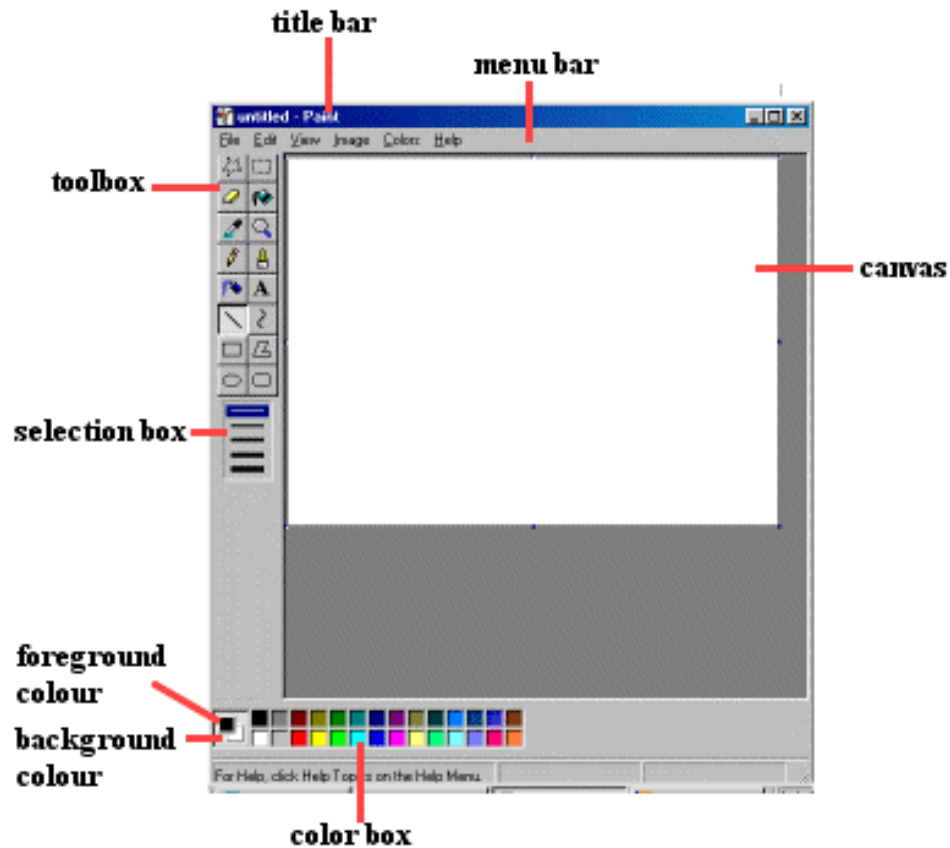
We realise that they are not perfect, so if you find any mistakes or think certain sections could be clearer then we would appreciate your feedback via e-mail to andy_price@hotmail.com

Happy teaching!

Andy & Ming
9th October 2002

Notes (3) - Paint

Paint is a small program which you can use to produce pictures. It is a good practice for using the mouse.



To the left of the color box is a double square. This shows the current colours selected. The *front square* shows the colour of a *left* mouse click and the *back square* shows the colour of a *right* mouse click.

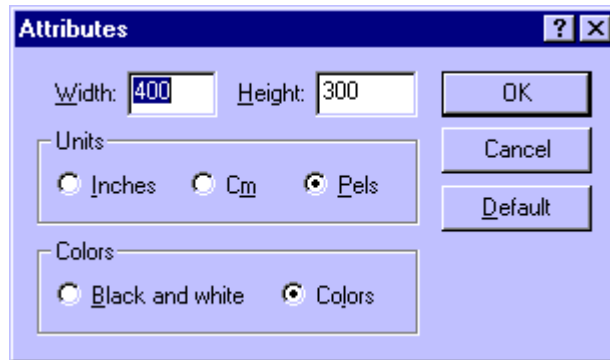
Note that if you choose a white colour and try to draw, nothing shows because the canvas you are drawing on is also white.

If the tool box or color box is not showing, click View on the menu bar and make sure that there is a tick next to their name on the menu.

When you click on a tool, a *selection box* may also appear just below the tool box – this gives you the choice of different thickness or style for the tool.

The first thing to do is set the size of the picture you want to create:

1. On the menu bar, click **Image** then **Attributes**
2. Enter the width (e.g. 400) and height (e.g. 300)
3. In the Units section select **Pels (Pixels)** which is the unit usually used when talking about images

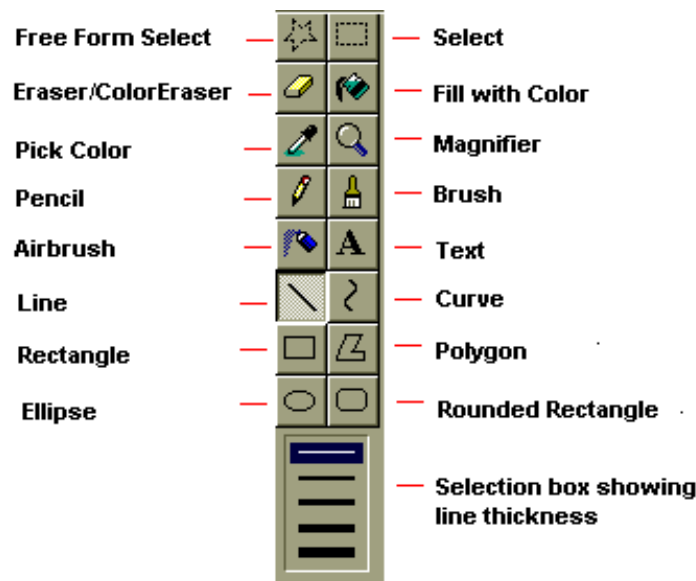


An image takes up a lot of memory, so it is good practice to keep it as small as possible.

Click on a tool and the status bar at the bottom of the window will describe what the tool is used for.

The general method for drawing is:

- position the cursor on the tool you want and single click
- move cursor to the canvas, notice cursor changes to a cross (not for all tools e.g. the pencil tool)
- hold down left mouse button and draw
- release the mouse button when you finish drawing
- if you want a different colour other than the default colour which is black, select the colour from the color box.
- if you want a different style or thickness, again make your choice from the selection box before moving the cursor to the canvas to draw.



Free drawing tools

Select the tool and practise drawing on the same canvas:

- Pencil – also practise choosing different colours from the Color Box
- Brush
- Airbrush – also practise choosing different sizes from the Selection Box
- Eraser – also practise erasing with different size of eraser

Practice: Using the above tools draw the face of the person sitting next to you.

Formal drawing tools

We will need a clean canvas to do some more drawings. Click on File, then New and a message appears “Save changes to untitled?” Click on No as we do not wish to save the work we have just done. On the clean canvas, practise using the following tools:

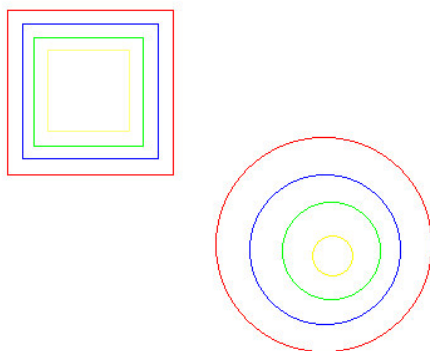
Line

It is easier to draw a line using the Line tool than the Pencil tool. When the Shift key is held down, the lines can only be drawn at angles of 45 or 90 degrees.

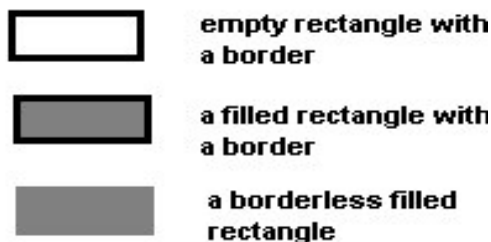
Rectangle/Ellipse/Rounded Rectangle

To draw the above shapes, drag the cursor downwards and diagonally. If the Shift key is held down it forces the rectangle to be a *square*, the ellipse to be a *circle* and the rounded rectangle to be a *rounded square*.

Practice: Open Paint and then open PC-01\Practical\Squares and Rounds as the example. Tile the two windows vertically and draw on the clean canvas. Save your document.



When the rectangle/ellipse/rounded tool is selected, a selection box appears with three different rectangle:



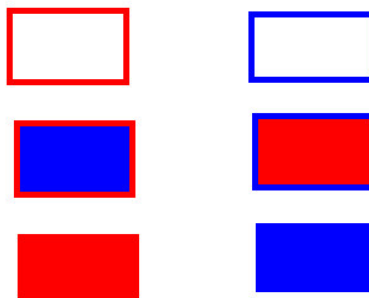
To change the thickness of the border, click the Line tool, select a thickness and then reselect the rectangle/ellipse/rounded rectangle tool.

To select the colour for the fill and the border - in the colour palette click the colour you want as foreground colour, e.g. red. Look at the double square on the colour palette – the front square is now red. Next, in the colour palette click the colour you want as background colour, e.g. blue. Look at the double square on the colour palette – the back square is now blue. Holding down the left or right mouse button will decide which colour is for the fill and which is for the border.

Let us draw three rectangles, one below the other. First select the thickness of the border, and the colours for the fill and border. Then select the first option on the Selection Box, hold down the left mouse button, and draw a rectangle. Repeat with the other two options. Compare the 3 rectangles.

Next draw three more rectangles beside the first set. This time hold down the right mouse button and draw. Compare the new set with the old set. Notice the colour of the fill and border alter according to which mouse button is held down.

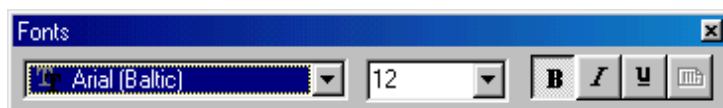
Practice: Using PC-01\Practical\ Selection Box as the example, draw the six rectangles. Make sure you choose the thickest border. Save your document as ss Selection Box in your folder.



Other tools

Text tool to add text to your drawing:

- Click the *Text* tool (the capital A) and drag out a box on the canvas where you want to insert text. It is a good practice to drag out a box big enough for your text right from the start.
- A text toolbar usually appear. If it is not showing, click on *View* on the menu bar and click on the *text toolbar*.



- Type in the required words, choose a font and font size from the text toolbox, choose a colour from the colour palette.
- Click outside the text box when you have finished your writing, but remember you cannot do any changes to the text after this.

Note: You can move around the text box using the same keys (arrow, backspace, enter, space bar, delete) as you would in Notepad. You can resize the text box as you would a window. If a word is broken up into two lines, resize the text box to make it bigger or change the font size to smaller.

Font – is the style of a letter, e.g. Arial, Times New Roman, Lucida Calligraphy

Font size – the size of a letter, e.g. 10, 12, 20

- To select a font or font size from the text toolbox, click on the downward arrow next to the font or font size – a drop down menu appears.
- Click on the down or up arrow of this menu to see the available options for fonts or font size.
- Click on the one you want.

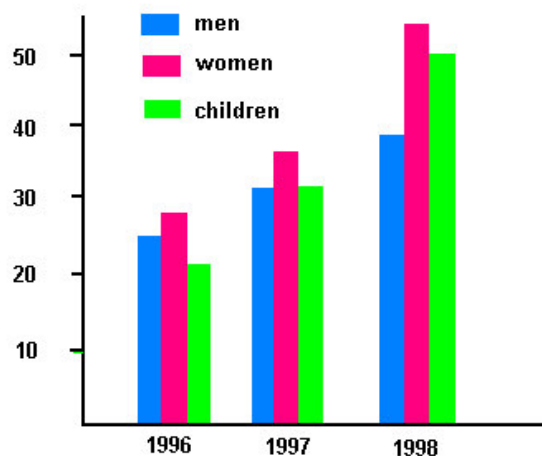
Practice: Using PC-01\Practical\Text as an example and on the clean canvas, set the font size to 20 and type three Hello

1. in blue and Arial
2. in red and Times New Roman
3. in green and Lucida Calligraphy

Repeat the three Hello again next to the first set, but this time also make them bold, italic and underline. Save your document.

Hello	<u>Hello</u>
Hello	<u>Hello</u>
<i>Hello</i>	<u><i>Hello</i></u>

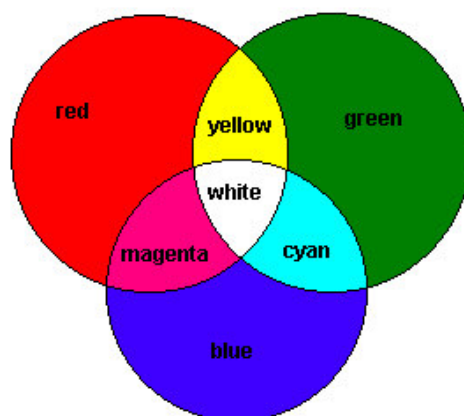
Practice: Open PC-01\Practical\Barchart as the example. On the clean canvas, draw the horizontal and vertical axes first and label the vertical axis. Text – Arial, 10pt and bold. Then add the groups of coloured vertical bars (select a borderless filled rectangle). Add the rest of the text. Save the document in your own folder.



Fill With Color tool is used for pouring colour into closed shapes such as rectangles or circles. If there is the slightest “hole” in the shape then the colour will bleed out all over the background. If this happens, click Edit, Undo, and then mend the hole using the pencil or the line tool.

Practice: Open PC-01\Practical\Colourwheel as the example. On the clean canvas, draw three overlapping circles with a thin black border. Use the Fill With Color tool to add in the colours. Add the text (Arial, 9 pt and bold) and save the document in your own folder.

colour wheel



Curve tool - use it to drag a diagonal line across the canvas. Now place the cursor about a quarter of the way up the line, hold down the left mouse button and drag the line upwards towards the top left corner. Note how it bends upward. Now place the cursor about three quarter of the way along the line, hold down the left mouse button and drag the line downwards. It should bend in the opposite direction and you should now have an S shaped line.

Practice: Open PC-01\Practical\Heart as an example. On a clean canvas draw a heart and save as ss Heart – Using the Curve tool, hold down the Shift key and draw a vertical line down the centre of the canvas. Two third up the line drag it out to the top right and one third down the line drag it out to the right. You now have a nice curve, the shape of half the heart.

Again using the curve tool draw a vertical line, making sure it touches both ends of the curve. Drag it out like you have done with the first line, but in the opposite direction.

Select pink from the Color Box and using the Fill With Color tool, fill the heart with pink. Select white colour and using the Text tool, set the font to Lucida Calligraphy and write “I love you” across the heart.



Revision

1. Draw a Paint window and name the parts.
2. What is the unit usually use for pictures?
3. Name some free drawing tools.
4. How do you draw a 45 degree line? Draw a thick red 45 degree line.
5. How do you draw a square? Draw a blue square with a thick border.
6. What is a selection box for?
7. Draw an ellipse with a red border and a blue fill.
8. Type 'Computer' – set the font to Bookman Old Style, font size to 14 and text colour to blue.
9. Type 'Danger' - set the font to Arial, font size to 28, text colour to red and underline.
10. Type 'Happy Birthday' – set the font to Times New Roman, font size 18, text colour to green, bold and italic.