Microsoft Paint is a simple paint program with a limited tool set that creates bitmapped images in a single layer only. This is a short tutorial to enforce some practice with all tools.

**The Tools**

Here is the paint toolbar, with the names of all the available tools:

- Selection Tools - for regular and irregular areas - select an area of the image to do something to including copy, erase, flip, or modify in some way.
- Eraser tool - erases part of the image (changes foreground color to background color)
- Bucket tool - fills in an enclosed part of the image with the foreground/background color.
- Eyedropper tool - chooses a color and turns on the bucket (fill) tool.
• Zoom tool - zoom in or out to see different magnifications of the image.

• Pencil tool - draw free hand lines with a single line width

• Brush tool - like the pencil tool but with a variety of brush strokes available. This is more useful than the pencil tool.

• Airbrush tool - draws a loose pattern of dots to give a light fill effect. A limited number of patterns are available.

• Text tool - places text on your image of various sizes and typefaces.

• Line tool - draws straight lines of various strokes (thickness).

• Curve tool - draws simple curves with up to 2 control points (besides the ends) of various strokes (thickness).

• Rectangle tool - draws square/rectangles with various fill characteristics.

• Polygon tool - draws polygons with various fill characteristics.

• Ellipse tool - draw ellipses/circles with various fill characteristics.

• Rounded Rectangle tool - just like the rectangle tool but draws rectangles/squares with rounded corners.

The Foreground and Background

While drawing with the pencil tool, the color that the pencil draws with is called the foreground color. The background color is the color that the eraser tool "paints" with in order to erase any lines drawn with the foreground color.

The color palette consists of 2 rows of colored boxes. Clicking any colored box with the left mouse sets the foreground color. Clicking any colored box with the right mouse will set the background color.
Making Mistakes and Experimenting

If you are going to try to add something that you’re not sure will work, first use Save As to rename your file to another version. For example if you are working on scape.bmp then you may change this to scape1.bmp and so on with later versions. This will allow you to go back to a previous file if your experiment doesn’t look as good as you had hoped.

You may Undo your last action by using the Control-Z key combination. (Hold down the Control key and press the Z key) You may undo actions up to 3 times but no more. Going further "back" is only possible if you have an earlier version of your work, as mentioned in the previous paragraph.

The Tool Tour

You should have a new empty image screen in Windows Paint before starting...

The Pencil Tool

Click the pencil tool in the tool box. Notice you cannot adjust the line thickness (stroke) with this tool. (no options) **Assignment:** Draw some free hand images including the word “Pencil” near lower center of image.

The Brush Tool

Click on the brush tool in the tool box. Notice the brush options below the tool bar.

**Assignment:** Select a different brush and draw a small image including the words “Brush”. Do this a couple of times with the brush tool using different brushes.

The Airbrush Tool

1. Click the airbrush tool in the tool box. To change the size of the spray pattern, choose a size from the options below the tool box. To choose the spray color, click a color.

2. To spray, drag the mouse pointer. Use the left mouse button to spray with the foreground color, or use the right mouse button to spray with the background color.

**Assignment:** Spray a border around the edge of your picture
The Text Tool

1. Click the text tool in the tool box.

2. Create a text frame by dragging the mouse pointer diagonally, and then click the font, size, and style you want.

   **Assignment:** Click inside the text frame, and then type your name. Move and enlarge the text frame and place it in the middle of your picture.

   To change the color of the text, click a color in the color box. To insert the text on a colored background, click the new background box option below the tool box, and then click a color with the right mouse button to change the background color.

3. To insert the text into the picture, click outside the text frame.

**Notes:**

- You can only paste text when the text tool is selected. You cannot paste graphics when the text tool is selected.

- You can enter text into a picture only in normal view.

- The text toolbar can dragged anywhere on the window.

The Line Tool

1. Click the line tool in the tool box. Choose the line width by clicking a line width from the bottom of the tool box. Choose a color for the line by clicking a color box in the color palette.

2. Left click in the middle of the screen and drag a line about 5 cm long near the **bottom** of your picture.

3. Hold down the Shift Key and continue dragging the line in a circle. Notice how the line is now limited (or constrained) to a vertical, horizontal or a 45 degree line.

4. Try dragging a line with the right mouse button. Notice how the background color is now used for drawing.

**Assignment:** Draw 2 thick blue vertical lines just inside the airbrushed areas near the left and right margins on either side of the page.
The Curve Tool

1. Click the curve tool in the tool box. Choose a different width for the line by clicking a line width from the bottom of the tool box. Choose a new color for the line by clicking a color box in the color palette.

**Assignment:** Draw 2 arcs at the bottom of the page using the directions below.

2. Draw a straight horizontal line by dragging the mouse pointer about 10cm. (It may be constrained by the Shift key).

3. Click where you want one arc of the curve to be, and then drag the mouse pointer to adjust the curve.

   Each curve must have at least one arc but no more than two. Repeat this step for a second arc. Use the left mouse button to draw with the foreground color or the right mouse button to draw with the background color.

The Rectangle Tool

(or Rounded Rectangle Tool)

1. Click the rectangle tool in the tool box to create a square-cornered shape, or click the rounded rectangle tool to create a round-cornered shape.

2. Click a color from the color box for the shape's outline.

3. To fill the shape with color, click a color by using the right mouse button, and then click a fill style from the bottom of the tool box.

4. To draw a rectangle, drag the mouse pointer diagonally in the direction you want. To draw a square, press and hold down SHIFT while dragging the mouse pointer.

   **Assignment:** Draw a square and a rectangle above the arcs near the page bottom. Fill with the color of your choice.

The Polygon Tool

1. Click the polygon tool in the tool box, and then click a color for the polygon outline.

2. To create a colored fill, click a color by using the right mouse button, and then click a fill style from the bottom of the tool box.

3. To draw the polygon, drag the mouse pointer and click at each corner. Double-click when you’re done. To use only 45- and 90-degree angles, press and hold down SHIFT while dragging the mouse pointer.

   **Assignment:** Draw 2 small red polygons at the top left and top right of the page.
The Ellipse Tool

1. Click the ellipse tool in the tool box.
2. Click a color from the color box for the shape’s outline.
3. To fill the shape, click a color by using the right mouse button, and then click a fill style from the bottom of the tool box.
4. Draw an small ellipse by dragging the mouse pointer diagonally. Create 3 small ellipses and 3 small circles below them.

To draw a perfect circle, press and hold down SHIFT while dragging the mouse pointer.

**Assignment:** Draw a circle inside an ellipse and place your name inside the circle at the center of the page. Colors of your choice.

The Brush Tool

1. Click the brush tool in the tool box, and then choose a brush shape from the bottom of the tool box.
2. Click a color from the color box.
3. To paint, drag the mouse pointer.

**Assignment:** Use fat brush strokes to make a pattern inside the square and rectangle.

The Bucket (or Fill) Tool

1. Click on the bucket tool in the tool box, and then click a color from the color box.
2. Click the area or object you want to fill: To fill with the foreground color, click the area with the left mouse button. To fill with the background color, click the area with the right mouse button. Notes: If the shape being filled has any breaks in its border, the filling color will leak through to the rest of the drawing area. To find and close the opening, use the Zoom tool to closely examine the border for breaks.

**Assignment:** Fill one of the red polygons with green.
The Eraser Tool

1. Click the eraser in the tool box. To use a smaller or larger eraser, click an option at the bottom of the tool box. The selected background color shows what color the eraser will leave behind. To change the background color, click a color by using the right mouse button.

2. Drag the mouse pointer over the area you want to erase.

3. To change a specific color (and nothing else), change the foreground color to the color you want to erase and the background color to the color you want to replace it with. Click the eraser, and then use the right mouse button to change the color.

4. To erase a large area

   (a) Click one of the selection tools in the tool box, and then drag the mouse pointer to select the area you want to erase. The current background color will be used to fill the cleared area.

   (b) To choose a different background color, click a color in the color box with the right mouse button.

   (c) On the Edit menu, click Clear Selection. (or right click and choose Clear Selection from the menu)

Assignment: Using the irregular selection tool, select one of the bottom arcs and erase it.

Using Save As, save this file in the folder with the name as outlined by your teacher.

The Paint Assignment

These assignments will demonstrate that you are using all of the tools and options of Windows Paint:

1. **The Wild West** (15 marks) You are assigned to design the storefronts for a new Clint Eastwood western. You must have 3 storefronts including a Saloon with curved swinging front doors, a General store and a Blacksmith’s shop in a single image. The first two buildings have two stories with rooms on the second floor and include a balcony on one. Some windows will have curtains (i.e. arcs or parts of an ellipse or circle).

   Use the rectangle tool to create building outlines. You should use the select tool to copy windows, doors, and other shapes. The ellipse tool (along with the eraser) or the circle tool can be used to create arcs.
2. **The Self Portrait** (15 marks) You are schizophrenic. You commission a portrait of yourself to be painted by your "other" self. It will be a picture of your head only. You will copy and flip both your eye and your ear to create copies for the other side of your face. You will use the curve tool to create your nose and mouth. Use the ellipse tool to create the outline of your head. Custom colours may be created to give good flesh tones, eye colour, etc.

3. **The Scape** (15 marks) You will create a landscape or seascape (i.e. underwater) containing at least 15 different elements such as plant and animal life, human activity, and forces of nature (i.e. weather, etc.) Again, try to make use of as many different tools as possible. Also don’t forget about the select and copy function to create "herds" of animals, etc. Try to create "vibrant" colors if possible.

4. **The "Action" Choice** (15 marks) You will create an image suggesting "action" of various sorts such as a skier going over a jump, or a race car going around a corner or a sports action of some kind, etc. The type of "action" is entirely up to you, but marks will be given for creative choices and demonstrated use of several different tools.