

# Pictures and For-each Loops

Pixel Method	Description
<code>int getRed()</code>	Get the red intensity (an integer from 0-255)
<code>int getGreen()</code>	Get the green intensity (an integer from 0-255)
<code>int getBlue()</code>	Get the blue intensity (an integer from 0-255)
<code>void setRed(int)</code>	Set the red intensity to a value from 0-255
<code>void setGreen(int)</code>	Set the green intensity to a value from 0-255
<code>void setBlue(int)</code>	Set the blue intensity to a value from 0-255
<code>int getX()</code>	Get the x coordinate where this pixel is located in the image
<code>int getY()</code>	Get the y coordinate where this pixel is located in the image
<code>void setColor(int red, int green, int blue)</code>	Set all three color values at once

0,0,0 = black

255,255,255 = white

For-Each Loops

```
for (<datatype> <variable-name> : <collection>)           java
{
    // body of for-each loops
}

// pixel example
for (Pixel pix : image.getPixels())
{
    pix.setRed(255);
}
```

Picture Method	Description
<code>new Picture(String)</code>	Use this constructor to create a <code>Picture</code> from an image file by providing the file name in double-quotes
<code>new Picture(int width, int height)</code>	Use this constructor to create a new, blank <code>Picture</code> with the specified dimensions
<code>int getWidth()</code>	Get the width of this image, in pixels
<code>int getHeight()</code>	Get the height of this image, in pixels
<code>Pixel getPixel(int x, int y)</code>	Get the pixel at the specified location
<code>Pixel[] getPixels()</code>	Get all the pixels in the image in a form suitable for use in a for-each loop

<code>void show()</code>	Show this picture on the screen
<code>void repaint()</code>	Update the on-screen image shown using <code>show()</code>
<code>void hide()</code>	Hide the image shown on the screen using <code>show()</code>
<code>void explore()</code>	Show the image using an image explorer view that allows you to inspect the color of any pixel in the image
<code>void reload()</code>	If this image was loaded from the file, throw away any changes made to the image and reload it fresh from the original file to restore it to its original appearance