Image Compression Activity

**The goal of this activity is to have you compare Image Compression algorithms and judge which is most efficient for certain situations.**

Step 1: Create a temporary folder called Compressed Images where you can save the images.

Step 2: Drawing your first image.

Using Paint or another simple drawing program, draw a simple picture of a snowman. You have 5 minutes.

Step 3: Save the image 3 times, changing the file type (and therefore the way it is compressed) each time. Save the files as:

* Snowman1.gif
* Snowman1.jpg
* Snowman1.png
* Snowman1.BMP (The BMP option may only appear if using Paint. If it does not appear, choose an alternative.)

Step 4: Navigate to the files and Right-Click… Properties and file the file size. Fill in the table below.

| Image Type | File Size |
| --- | --- |
| Snowman1.gif |  |
| Snowman1.jpg |  |
| Snowman1.png |  |
| Snowman1.BMP |  |

| Based solely on File Size, which file type (which represents a compression algorithm) do you think is best for sending to your friends over a social network. Why? |
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| Find a website that gives an understandable text explanation of how your chosen compression algorithm works. Paste that explanation here:  Source: |

Step 5: If your drawing program has a spray can type tool, use it to add a sunset behind your snowman. Use multiple sprayed colors.

Step 6: Resave your files as Snowman2 in each format and recheck the sizes

| Image Type | File Size |
| --- | --- |
| Snowman2.gif |  |
| Snowman2.jpg |  |
| Snowman2.png |  |
| Snowman2.BMP |  |

| Which of the file types, if any, had significant changes in size from Snowman1 to Snowman2. What do you think caused the change? Talk with a neighbor and explain a conclusion here. You do not need to be correct, just make a hypothesis. |
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