**What’s in a File Name? Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Using your favorite search engine, find information about the different file types: **jpeg, gif, tiff, and png**. Then, use that information to answer the following questions.

1. For each of the following statements, tell which file type(s) would work:

A. Can show only 256 colors (instead of 16 million): *gif*

B. Is good for photographs: *jpeg, tiff*

C. Is best for complex logos with more than 256 colors: *png*

D. Can be animated: *gif*

E. Supports transparency: *gif, png, tiff*

F. Is an incredibly large file size: *tiff*

2. What is lossy compression? Which file type uses it?

*Lossy compression is a way of making a file smaller by deleting some of the “unimportant” information. Jpeg uses a lossy compression.*

3. What is lossless compression? Which file types use it?

*Lossless compression is a way of making a file smaller while retaining all of the original information. However, the file generally can not be made that much smaller, since none of the information is being deleted. Png and gif use lossless compression.*

4. One file type can be stored as either lossy or lossless? Which file type is that?

*Tiff files.*

5. Browse through internet sites to find one graphic or photo of each type. (To figure out which type of file an image is, right click or command+click on the photo and “Save Image As,” then see what file extension pops up on the Save dialog box.) For each photo/graphic type that you find, explain what the image is and how large of a file it is.

|  |  |  |
| --- | --- | --- |
|  | **Image/graphic** | **File size** |
| **jpeg** |  |  |
| **gif** |  |  |
| **tif** |  |  |
| **png** |  |  |

6. Reflect on the information that you found in Question #5. Which was the largest file size? Did you notice anything interesting about what types of images were saved as specific file types?

*Students may comment on how graphics and logos were primarily saved as gif/png and photos were saved as .tif/.jpeg. They may have trouble finding a .tif file on the internet. They also might comment on how .tif and .png files are comparably bigger than .jpeg and .gif files online.*