IMAGE COMPRESSION

Key Revision Facts: GCSE Computer Science

Image Compression is used to reduce file sizes. Compression can be lossy or lossless.

LOSSY COMPRESSION

Lossy compression reduced the image file size by removing data from the original image, and the data is **permanently lost**. The process is irreversible. Once you convert to lossy, you can't go back.

Advantages of Lossy	Disadvantages of Lossy
• Very small file sizes	• Data is permanently lost. • Quality degrades with a higher ratio of compression

Examples of Lossy Compression

- JPEG is often used for digital camera images because it has a fairly small file size for the quality that it displays. JPEG is a lossy format that offers a higher compression rate than PNG in the trade-off for quality.

LOSSLESS COMPRESSION

Lossless compression refers to compression in which the **image is reduced without any quality loss**.

Advantages of lossless	Disadvantages of lossless
• No loss of quality • slight decreases in image file sizes	• Larger files than if you were to use lossy compression

Examples of Lossless Compression

- PNG is a lossless compression type. It is often used where the graphic might be changed by another person or where the image contains layers of graphics that need to be kept separate from each other.