**UNIT 11 TASK 1**

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**The concept of a pixel**

An image or graphic can be represented on digital displays with pixels, the smallest units of this image or graphics.

A computer display consists of pixels that combine to form an image/video or anything that is visible.

**How an image is structured (width. Height)**

When creating an image, the use of width and height is used to determine the size of the image. Having a higher width and length on your device will allow for an image using up more pixels.

**The concept of Bit Depth and Color depth (bits per pixel, explain the different possible values)**

The depth of the bit, which can also be called color depth, is the number of bits used to specify the color of a single pixel.

**What factors affect the size of the image file.**

**Why we have both RGB and CMYK colour modes**

Depending on how the RGB color spectrum is blended, each pixel receives its special color.

In your image, if you use 8 bit then you have 256 shades of red, 256 shades of blue and 256 shades of green. Therefore, you have a total of 16,777,216 possible colors.

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| **Common bit depth** | **Number of colours** |
| **1 bit** | **2** |
| **2 bit** | **4** |
| **3 bit** | **8** |
| **4 bit** | **16** |
| **5 bit** | **32** |
| **6 bit** | **64** |
| **7 bit** | **128** |
| **8 bit** | **256** |

**Why we compress files, and how the compression works (Lossy and lossless)**

**Describe a range of Raster file types and their properties.**