Instructions Session 3 Bitmap Images

Taken from Data Representation: Bitmap Images
https://www.stem.org.uk/resources/elibrary/resource/35838/data-representation-bitmap-images

Introduction

In this session you will look at image resolution and how to work out the size of a file. In real life the digital images we take are ever increasing in size. This session will help understand how the size of an image is calculated and also what an image actually looks like to a computer.

Preparation

For this session you will need these files:

Presentation-Saving_Bitmaps

Worksheet_ Starter

Answers_ Starter

Worksheet_Image_Size

Answers_ Worksheet_Image_Size

1. Open the presentation. This has information to help explain tasks and also follows the flow of the session.
2. Complete the starter task (Worksheet_Starter).
3. Check your work using Answers_Starter.
4. Read the theory on slides 4 to 7 explaining how to calculate the size of a bitmap image.
5. Work through the questions on the activity sheet. The steps to follow are on the worksheet and the first question is set out for you. Set your answers out in the same way to make sure you do not miss a step.
6. Check your work with Answers_Worksheet_Image_Size. Correct any mistakes. A different colour may help highlight this.
7. Slide 9 explains metadata (the data that is saved with an image so it can be rebuilt).
8. Slides 10 – 17 show what an actual image would look like in binary. Look at each slide and see where words used in this session fit into a 'real ' application.
9. Slide 18. Pause for thought asks you to consider what is happening next time you send an image. Picture all of those ones and zeros leaving your device and traveling along a network to reach the person you sent it to. Next time you watch TV, a DVD check on social media consider the ones and zeros that are making up what you can see.