

## Instructions Session 4 Compression

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 compressing files to reduce their size. You will see how both types of compression work and consider when they would be used.

### Preparation

For this session you will need these files:

Presentation-Compression

Worksheet\_Recap

Answers\_Worksheet\_Recap

Unplugged\_Text\_Compression (This can be printed and used without a computer)

Short\_and\_Sweet\_Solution

1. Open the presentation. This has information to help explain tasks and also follows the flow of the session.
2. Read slides 2 to 5. Complete the crossword (Worksheet\_Images).
3. Check your work using Answers\_Images.
4. Not only images can be compressed. You have seen lossy compression removes data. The next exercise shows how lossless compression allows a file to be rebuilt exactly as it was. This is very important when compressing text files or computer programs for example.
5. Open activity 3. You Can Say That Again!. (on a computer open Unplugged\_Text\_Compression ). **Note. This document starts on page 23.**
6. Read the introduction and try the activity on p26 (Peas porridge hot). Write in the letters using the arrows to show where you need to copy from.
7. Check using the solution on p30.
8. Try the challenge of a different rhyme. Some are suggested on the page.
9. Now try the activity on p28.
10. Use Short\_and\_Sweet\_Solution to check your work. The sheet is coloured to help see the possible combinations.
11. Finally read 'What's it all about' on p30 to give more detail on why compression is needed.