



Short Activity
Ages 6–8
20–30 minutes

Pixel Art

Description

Learn about binary numbers to create your own pixel art.

Competencies

- Computer literacy
- Logic and sequencing
- Following directions
- Eye-hand coordination

Materials

- Printer
- Computer
- Paper
- Highlighters or markers

Preparation

- [Download and print all pixel art handouts for each participant](#)
- [Optional: Download the Excel Pixel Art Creator file to create your own pixel art for participants or have participants use the tool to create original art](#)

Implementation

1. Start with an introduction to the concept of binary, such as the following:
 - a. Binary means things are related to, composed of, or involving two things—in our case, using only the numbers 0's and 1's
 - b. Other examples of binary is having two states, like a light switch because it can only be in two positions, on or off; talk as a group about examples of things that are binary, like a button (pushed or not pushed), yes or no, true or false, on or off
 - c. Did you know that computers think only in binary? Computers have microchips that have millions of tiny switches called transistors, that can be either off (0) or on (1); all of these switches work together to do more complex behaviour like math, display pictures, and play video games or movies
2. For our Pixel Art, any box with a 1 inside can be filled with marker or highlighter, and any box with 0's can be ignored
3. See what images are hidden once you are done

Book Suggestions

The Manic Panic by Richa Jha

Unplugged by Steve Antony