

U2Ch1L7_Encoding Black and White Images (15pts.)

Purpose: Students will learn how to use bits to encode a black and white image.

Vocabulary: Pixel, Sampling

Journal: Define Pixel (indv/partner). Instructor explain with an image.

Video: A Little Bit about Pixels - Video

Video: Tutorial: Using the B&W Pixelation Widget - Video Activity: Encoding a Black & White Image and "Sampling"

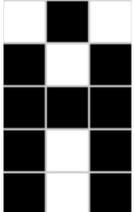
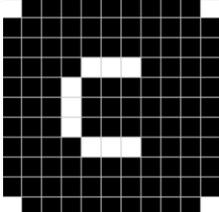
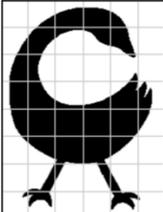
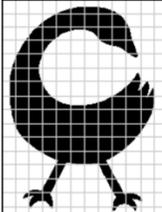
Handout: "Encoding a 3x5 Letter A".

First, view the Raw stream of bits that make up the letter 'A' and the explanation that accompanies it.

Second, now...you try to write the stream of bits to create the 'A'.

Third, compare your attempt to the original. Did you succeed.

Open Code.org U1Ch1L7: Black & White Images and begin using the Pixelation Widget.

Letter 'A' (Puzzle 1/8)	Fix the "C" (Puzzle 2/8)	Challenge A: Black Bird_6x8 Grid - (Puzzle 3/8)	Challenge B: (5pts.) Black Bird12x16 Grid (Puzzle 4/8)
			

Journal: View the image in "Challenge A" and "Challenge B" (above). Define Sampling.

Challenge C: Recreate a Corporate Logo -(Puzzle 5/8) Handout! (10pts.)

1. Select a corporate logo to recreate.
2. Select a grid sample size - use one of the grids from the handout I provided you.
3. Draw the logo.
4. Now create the logo on the Code.org widget.
5. When done, show your image to a classmate and decide if you need to increase the Sampling Size.

