

Name(s) _____ Period _____ Date _____



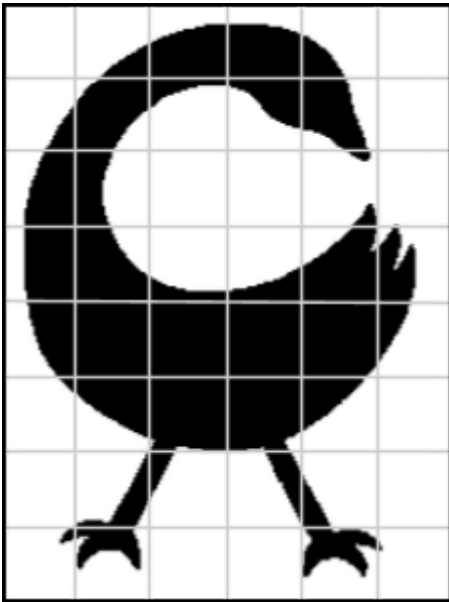
Activity Guide - Black and White Images

Building a Digital Image

Work to digitally represent the image below

- Read each square of the image and fill in the responses on the worksheet
- Enter the bits in Code Studio and use a timer to keep track of how long it takes
- Remember: Each bit can only be either black or white! You will have to decide for each square

Challenge A



When finished sampling, reflect on the following:

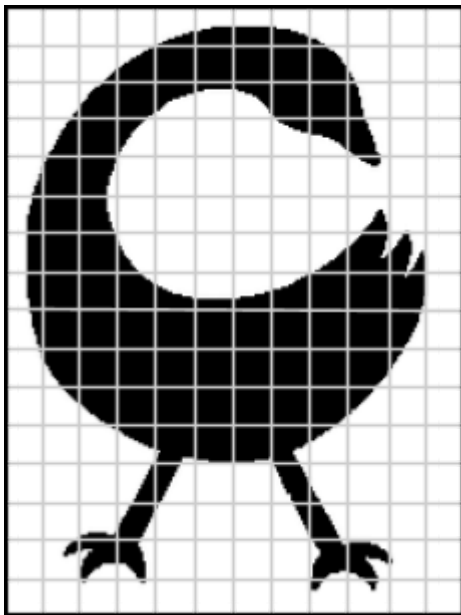
How many total bits were needed? _____

How long did it take to build? _____

How much does the digital image resemble this one? Why might that be the case?

Challenge B

This time, we will use sampling more frequently by reading the image using smaller squares.



How many total bits were needed? _____

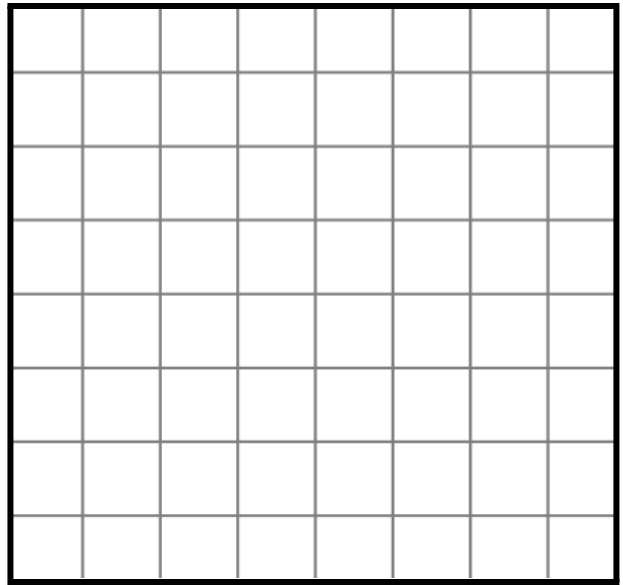
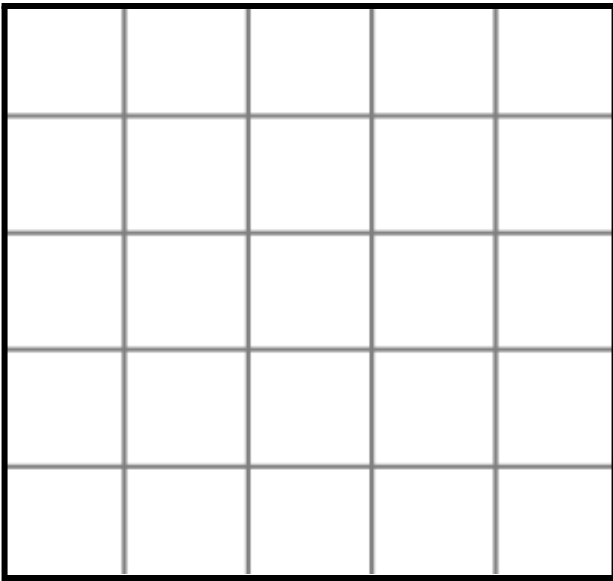
How long did it take to build? _____

How does the new digital image compare to the one from Challenge A? What effect did taking a larger number of samples have on the image?

Challenge C

Select your favorite company logo. Decide how you are going to sample this logo - use one of the grids below. Draw the logo.

Low Sampling Frequency



High Sampling Frequency

