### Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Lesson 2: Turning Numbers into Pictures**

How can an image be converted to a digital format?

**Doing the Science**

1. Start the Rosetta Phone Simulation by clicking on the “Sim” tab.

2. Exchange the numeric code that you created in Lesson 1 with a fellow student.

3. Click the “Decode” button at the bottom-left of the screen. Use the “0” and “1” buttons to enter the code into the simulation. After you have entered the entire code for a given letter, write the letter formed by the image in Table 1 below. Click the “Done” button.

4. Repeat the process for the four other letter codes.

5. Write the five-letter word in the space below Table 1. Check with your classmate to see if you successfully decoded the word.

**Table 1.**

|  |  |
| --- | --- |
| Letter | **Numeric Code** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## Five-letter Decoded Word = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Do You Understand?**

1. Did any particular letters cause you more difficulty in their recognition than other letters? Discuss why this difficulty occurred.

2. What would happen to the quality of how a letter appeared in this simulation if the boxed grid had 1,000 boxes instead of 25 boxes?