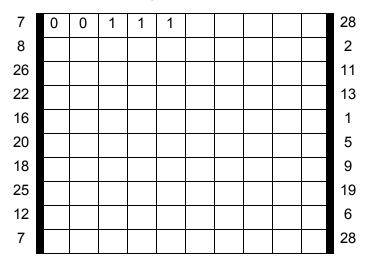Name:_____   Date:_____
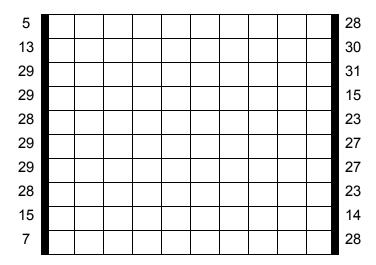Teacher:_____   Period:_____

Binary Worksheet

In this activity you will be converting base-10 numbers into base-2(binary) numbers. In 5-bit notation (the notation we are using) the first number=16, the second number=8, the third number=4, the fourth number=2, and the fifth number=1. For example, the 10110 would equal 16+0+4+2+0, therefore 10110=22. Each box represents a bit. The first 5 boxes are the 5-bit numbers on the left, the second 5 boxes are the 5-bit numbers on the right. I have given you the first number as an example.

Color the 0's yellow and the 1's black

7	0	0	1	1	1						28
8											2
26											11
22											13
16											1
20											5
18											9
25											19
12											6
7											28

The Picture above is a: _____

Color the 0's white and the 1's red

5											28
13											30
29											31
29											15
28											23
29											27
29											27
28											23
15											14
7											28

The Picture above is a: _____

Color the 0's white and the 1's black

16											1
18											9
18											9
18											9
9											18
7											28
11											26
19											25
21											21
21											21
20											5
16											1

The Picture above is a: _____

Teacher Instructions

Estimated Time: 25 min

Purpose: Understand Binary

Instructions: Give some background on binary, we have a powerpoint to help. They don't need to understand it to do the worksheet though but it helps.

Answers: Smiley Face, Beats Logo, Spider