Worksheet Activity: Binary Numbers

Learning how to count
So, you thought you knew how to count? Well, here is a new way to do it! Did you know that computers use only zero and one? Everything that you see or hear on the computer—words, pictures, numbers, movies and even sound is stored using just those two numbers! These activities will teach you how to send secret messages to your friends using exactly the same method as a computer.

Instructions
Take your set of 5 binary cards and lay them out from largest to smallest (left to right).

Now flip the cards so exactly 5 dots show—keep your cards in the same order!

Find out how to get 3, 12, 19. Is there more than one way to get any number?

What is the biggest number you can make? What is the smallest? Is there any number you can't make between the smallest and biggest numbers?

Extra for Experts: Try making the numbers 1, 2, 3, 4 in order. Can you work out a logical and reliable method of flipping the cards to increase any number by one?