



Lesson Directions Overview

Equipment List

- 34 BinaryBonanza™ Cards
- 8 ToppleTubes™ Tubes

Learning Objectives

1. Understand the binary system as a base two numerical representation of numbers.
2. Visually represent a number in binary by placing tubes in the correct configuration.
3. Convert binary numbers to decimal numbers and vice versa.

Grade Levels: 6-12

Vocabulary Covered

- Binary System
- Bit
- Place Value

CCMS Topics Addressed

- Number and Operations in Base Ten
- The Number System

CSTA K-12 CS Standards Topics Addressed

- Data & Analysis > Storage > Abstraction
- Computing Systems > Hardware & Software > Abstraction