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Sharing STEM: Math Games

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All But 7 [Grades 1-3]

Regents' Center for Early Developmental Education

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Recommended Citation

Notes for *All But Seven*

Level: Grades 1-3

Recommended # of Players: 2

Materials: 40 chips (20 each in 2 colors); 2 standard dice; *All But 7* game board

Math Skills: Addition and Subtraction 1-6

Mathematical benefits:

Numeracy: *All But 7* is a game which is designed to help students begin thinking about the composition and decomposition of numbers. Students create their own part- whole relationships using the numbers they roll. This requires students to think on a deeper level about numbers, and how they work together. Initially students may tend to use the operation with which they are most comfortable- however, in order to be successful, students must use both addition and subtraction.

Strategy: Children also have the opportunity to think strategically about the many ways some numbers can be formed. For example, 1 can be formed 5 ways (6-5, 5-4, 4-3, 3-2, or 2-1). In contrast, some numbers can be formed in only one or two ways. For example, 11 can only be formed in 2 ways (6+5 and 5+6). They can use this information in deciding which operation to use and which number to cover up. This is also an opportunity for students to think about probability. Students will experience probability as they are more likely to roll numbers that will allow them to cover a 1 than an 11.

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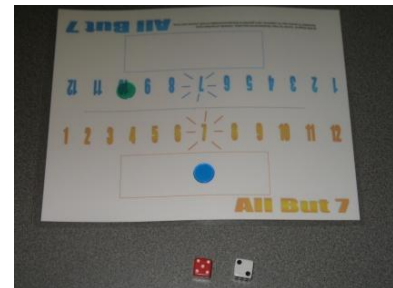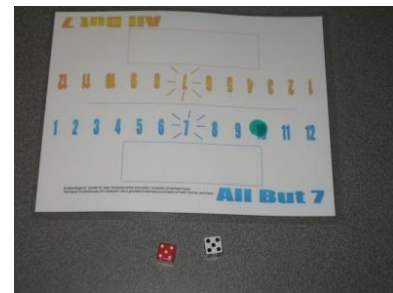EARLY DEVELOPMENTAL
EDUCATION

All But 7

Limit 2 players

Materials:
40 chips (20 each in 2 colors)
2 standard dice (1-6 dots)
All But 7 game board

Objectives:
To be the first person to cover up all the numbers on his or her side of the board without collecting seven chips.

To Play:
1. Players choose a color of chip. The board is placed between the players so that a rectangular box is in front of each player.

2. Players decide who goes first.

3. Players take turns rolling the dice and covering up numbers on the board. Players can choose to either **add** the two numbers or **subtract** them. Players then cover that number on their side of the board with a chip. If the number is already covered, players do nothing, and it is the other player's turn.

4. If players roll two numbers that add up to **7**, they **must** put a chip in their rectangle.

5. The first player to cover all of the numbers on his or her side of the board before collecting 7 chips is the winner.

12 11 10 9 8 7 6 5 4 3 2 1

1 2 3 4 5 6 7 8 9 10 11 12

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All But 7