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| **NC.3.NBT.2**  **Compatible Numbers** | |
| **Domain** | Number and Operations in Base Ten |
| **Cluster** | Use place to add and subtract. |
| **Standard(s)** | **NC.3.NBT.2** Add and subtract whole numbers up to and including 1,000.  • Use estimation strategies to assess reasonableness of answers.  • Model and explain how the relationship between addition and subtraction can be applied to solve addition and subtraction problems.  • Use expanded form to decompose numbers and then find sums and differences. |
| **Materials** | Ms. Snyder’s Game Board (teacher copy), document reader/overhead projector, paper, pencils, handout (optional) |
| **Task** | **Part 1:**  Display Ms. Snyder’s Game Board.  Read:   * *Ms. Snyder is playing a game with her class. In order to win round 1 of the game, the class must find two numbers on Ms. Snyder’s game board whose sum is exactly 1,000.* * *Which two numbers will win the game?* * *What strategy did you use to find the two numbers with a sum of 1,000? Write a list of steps that will help students follow your strategy.*   **Part 2:**  Display Ms. Snyder’s Game Board.  Read:   * *In order to win round 2 of the game, the class must find three numbers on Ms. Snyder’s game board whose sum is exactly 1,000.* * *Which three numbers will win the game?* * *How is your strategy for round 2 different from what you did in round 1? Write a list of steps that will help students follow your strategy for round 2.*   **Part 3:**  Create your own game board that has a set of two numbers whose sum is exactly 1,000 and a set of three numbers whose sum is 1,000. See if a friend can find each set of numbers whose sum is 1,000. |

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| **Rubric** | | |
| **Level I**  Not Yet | 1. **Level II** 2. Progressing | **Level III**  Meets Expectations |
| * Student’s response is incorrect, incomplete, or off task. | Student does 1-3 of the following:   * Student identifies that the sum of 463 and 537 is 1,000. * Student identifies that the sum of 124, 376, and 500 is 1,000. * Student generates a game board with a set of two numbers whose sum is 1,000 and a set of three numbers whose sum is 1,000. | * Student identifies that the sum of 463 and 537 is 1,000. * Student identifies that the sum of 124, 376, and 500 is 1,000. * Student clearly explains strategies for finding sums. * Student generates a game board with a set of two numbers whose sum is 1,000 and a set of three numbers whose sum is 1,000. |

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| **Standards for Mathematical Practice** |
| 1. Makes sense and perseveres in solving problems. |
| **2. Reasons abstractly and quantitatively.** |
| 3. Constructs viable arguments and critiques the reasoning of others. |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| **8. Looks for and expresses regularity in repeated reasoning.** |

**Ms. Snyder’s Game Board**

**500 236 376**

**463 145 537**

**743 856 124**

**Compatible Numbers**

**Ms. Snyder’s Game Board**

**500 236 376**

**463 145 537**

**743 856 124**

**Part I:**

Ms. Snyder is playing a game with her class. In order to win round 1 of the game, the class must find two numbers on Ms. Snyder’s game board whose sum is exactly 1,000.

Which two numbers will win the game?

What strategy did you use to find the two numbers with a sum of 1,000? Write a list of steps that will help students follow your strategy.

**Part II:**

In order to win round 2 of the game, the class must find three numbers on Ms. Snyder’s game board whose sum is exactly 1,000.

Which three numbers will win the game?

How is your strategy for round 2 different from what you did in round 1? Write a list of steps that will help students follow your strategy for round 2.

**Part III:**

Create your own game board that has a set of two numbers whose sum is exactly 1,000 and a set of three numbers whose sum is 1,000. See if a friend can find each set of numbers whose sum is 1,000.