Lesson Title: Dodo Addition (placemat version)
Grade: 2
Content Standard: 2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 2.NBT. 6 Add up to four two-digit numbers using strategies based on place value and properties of operations. 2.NBT. 7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; record the strategy with a written numerical method (drawings and when appropriate, equations) and explain the reasoning used. Understand that in adding or subtracting three-digit numbers, hundreds are added or subtracted from hundreds, tens are added or subtracted from tens, ones are added or subtracted from ones; and sometimes it is necessary to compose or decompose tens or hundreds.

Materials: 1) 1 deck of dodo cards for every pair of students consisting of 20 ones cards, 20 tens cards, and 10 hundreds cards (I have attached a document master for each of the cards. The master needs to be reduced to $65 \%$ on the copy machine. That will make a size that 9 of the cards can then be cut out and attached $3 \times 3$ on a sheet of copy paper to make a new master with nine cards on it I then copied each 9 card master onto construction paper (yellow for the ones cards, orange for the tens cards, and purple for the hundreds cards. I laminated and cut up into individual cards. 2) 1 placemat for each pair of students (To make a placemat, take one of each of the three nine card masters and tape together in place value order, hundreds master, tens master, ones master from left to right. Laminate. 3) A set of problems for the students to solve (attached).

Shared Experience and procedure details: Model how to use the board to combine 2 numbers. One student is assigned the first number from the problem set. That student then counts out the cards from the deck that represent that number ( If the number is 123 the student takes 1 hundred card, 2 tens cards, and 3 ones cards). The second student gets the cards that represent his/her number from the problem set. The students then alternate placing one card at a time on the placemat wherever there is an open space for that card. If a student cannot place a card because all nine spaces for that card (or place value) are filled, the student must make a trade of that card with the nine already on the board for one card from the next place value. When all the cards are placed, the students then determine what the combined numbers are by counting cards on the placemat. After the students have combined several pairs of numbers, assign 1 problem that the entire class will do at that point in the lesson and will then be used for their picture, writing, and discussion in people talk. I will use two addends that require only one trade such as 37 and 55.

Possible Picture: The students may show the placemat and cards at various stages of the combining process. The picture may show the trade of 10 ones cards for a ten card. They may show the cards and placemat in its final stage. Students may represent cards in symbolic form as opposed to pictures.

Possible People Talk: The students will discuss various ways they represented the two numbers. This discussion may include the numbers that are represented by the cards and place value of the cards. The students will discuss the trade involved and how that can be shown pictorially and symbolically. Discussion may include the necessity for making the trade.

Feature Talk: trade, regroup, add, combine, ones, tens, hundreds, together, equal, cards, board, addend numbers, sum number, count

Feature Talk sentences using key words:

1. We combined 37 and 55 and got 92. 2. We had to trade 10 ones for a 1 ten .

Possible Symbolic Representation:

1. $37+55=92$ 2. $1+1+1+1+1+1+1+1+1+1=10$

Any and all parts of the above may be substituted with pictures and alternative symbols.

Reinthal 10/5/17

Names

First Number Second Number Put Together

|  |  |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |


| a | 4 | 0 | 4 | 0 | 0 | Q | 0 | © |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | 0 | 10 | 12 | 0 | 0 | 0 | 0 | 4 |  |
| $0$ | (1) | 0 | 4 | 0 | 0 | 0 | 0 | d |  |
| 时 | 0 | 0 | Q | 0 | 0 | 0 | 040 | a |  |
|  | (1) | cid | 0 | 4 | 4 | (1) | (1) |  |  |
| $0$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Q | 0 | 0 | 0 | 0 | 0 | 0 | 0 | (1) |  |
| $0$ | $00$ | 0 | 0 | 0 | 0 | 0 | 40 | (4) |  |
| $0$ | 0 | 0.4 | 0.1 |  | 0.4 |  | 0 | 4 |  |
|  | 0 | 0 | 0 | 0 | (1) | (1)2 | (1) | 0 |  |


|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |


|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

