

Math Investigation Centers



2nd Grade ~ Unit 2 – Numbers to 1,000

Math and Logic

Secret Number Squeeze:
Use your genius mind to guess your partner's secret number.

Math and Logic

Clue Me In:
Be a math detective and discover mystery numbers.

Math and Problem Solving

Mastermind:
Use your mastermind to figure out a mystery number.

Student Choice

Math and Literature

More or Less:
At the school fair, Eddie has a booth to guess people's ages. Play the Comparing Numbers game like Eddie.

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Secret Number Squeeze

Unit of Study 2

Core Correlation: 2.NBT.8

DOK: 2; **Proficiency Level:** 4

Type of Activity: Math and Logic

Materials: Secret Number Squeeze Game Board, Secret Number Squeeze Recording Sheet, counters, pencil

Introduction: Use your genius mind to guess your partner's secret number.

Instructions:

- Player 1 chooses a number from the Number Squeeze Game Board and writes it secretly on the Number Squeeze Recording Sheet.
- Player 2 asks if Player 1's number is greater than or less than another number on the game board.
- Player 1 decides if Player 2's number is greater than or less than their number and covers any numbers that have been ruled out.
- Player 2 continues to ask greater than or less than questions until he/she guesses Player 1's secret number.
- Switch roles and play the game again.

Assessment:

Grade will be determined by completion of the following:

- Completion of Secret Number Squeeze Recording Sheet



Secret Number Squeeze

Recording Sheet



Name _____

Player 1 Mystery Number	Player 2 Guess	Numbers Covered

Player 1 Mystery Number	Player 2 Guess	Numbers Covered



Secret Number Squeeze Game Board

700							
710	720	730	740	750	760	770	780
							790
870	860	850	840	830	820	810	800
880							
890	900	910	920	930	940	950	960
							970
1,050	1,040	1,030	1,020	1,010	1,000	990	980

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Clue Me In

Unit of Study 2



Core Correlation: 2.NBT.1

DOK: 3; **Proficiency Level:** 4

Type of Activity: Math and Logic

Materials: Clue Me In Recording Sheet, Clue Me In Number Charts, Clue Me In Card Sets, pencil

Introduction: Be a math detective and discover mystery numbers.

Instructions:

- Choose one card set.
- Read each clue and cross off numbers until only one possibility remains. For example, if your card reads “The digit ‘7’ is not in the number,” you would cross out all of the sevens on the chart.
- Once all the clues have been read, record your number on the Clue Me In Recording Sheet.
- Check your answer against every clue to make sure that it is correct.
- Repeat this activity with the rest of the clue task cards.
- Create your own clue card. Write at least four clues.

Assessment:

Grade will be determined by completion of the following:

Completion of Clue Me In Recording Sheet.



Clue Me In

Card Set A & Card Set B

Card Set A	Card Set B
<ol style="list-style-type: none">1. All of the digits in the number are odd.2. The number is less than 900.3. The digit "7" is not in the number.4. The sum of the digits in the tens and hundreds places is six.5. The digit in the ones place is less than five.6. The sum of all three digits is nine.7. The number in the ones place is two or more than the number in the hundreds place.8. The number is less than 200.	<ol style="list-style-type: none">1. The number is less than 900.2. The digit in the tens place is not odd.3. The number is odd.4. The digit in the hundreds place is even.5. The number is greater than 700.6. The digit in the ones place is one more than the digit in the hundreds place.7. The sum of the digits in the ones and tens places is nine.8. The sum of all the digits in the number is 17.



Clue Me In

Card Set C & Card Set D

Card Set C	Card Set D
<ol style="list-style-type: none">1. The number is even.2. There are four digits in the number.3. The number is less than 1500.4. The digit in the tens place is "3."5. No digits in the number are greater than five.6. The digit in the hundreds place is one less than the digit in the tens place.7. Half of the digits in the number are odd.8. The digit in the ones place is three more than the digit in the thousands place.	<ol style="list-style-type: none">1. There are no odd digits in the number.2. The number is less than 4000.3. There is no "4" in the number.4. The digit in the hundreds place is "8."5. The digit in the tens place is two less than the digit in the hundreds place.6. The digits in the ones place and the tens place are the same.7. The number is more than 2500.8. There are three different digits in the number.



Clue Me In

Number Charts

Thousands	Hundreds	Tens	Ones
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

Thousands	Hundreds	Tens	Ones
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9



Clue Me In

Recording Sheet

Name _____

Write the clue card set you used and the answer in the box.

Clue Card Set	Answer

Create your own clue card set. Write at least four clues.

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Mastermind

Unit of Study 2



Core Correlation: 2.NBT.1

DOK: 2; **Proficiency Level:** 4

Type of Activity: Math and Problem Solving

Materials: Master Mind Recording Sheet, pencil

Introduction: Use your mastermind to figure out a mystery number.

Instructions:

Play the following game with a partner:

- Player One will choose a target number between 100 and 999 with no digits the same. The player will write it down secretly on the back of the Master Mind Recording Sheet.
- Player Two will then give his/her first guess. Player One will write the guess on the chart. Use the correct columns to write how many digits in the guess are correct and how many of the correct digits are in the correct place. Use a zero to show that neither the digit nor the place value is correct. Do not tell which digits are correct or incorrect; just *how many* digits are correct or incorrect.

Guess	Digits Correct	Places Correct
293	0	0
356	1	1
296	0	0
...

- Player Two should explain why each guess was made. Continue playing until the target number has been determined.
- Then, Player Two will choose a new target number and repeat the game.
- Both players must explain the strategy for the guesses they make.

Assessment:

Grade will be determined by the following:

- Completion Master Mind Recording Sheet

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More or Less

Unit of Study 2



Core Correlation: 2.NBT.4

DOK: 2; **Proficiency Level:** 4

Type of Activity: Math and Literature

Materials: More or Less by Stuart J. Murphy, number cards, three six-sided dice per player, Comparing Numbers Game Sheet, scissors

Introduction: At the school fair, Eddie has a booth to guess people's ages. Play the Comparing Numbers game like Eddie.

Instructions:

- Read or listen to the story, More or Less by Stuart J. Murphy
<https://www.youtube.com/watch?v=3WbbOIPk4hI>
- Play the following game three times with two other players.
 - Each person needs a Game Card Sheet. Cut out your game cards. Fold each game card on the dotted line.
 - The goal of this game is to correctly identify who has the greatest number, in between number, and least number.
 - Roll your dice behind the flap of your folded game card so the other players cannot see your dice.
 - Create the largest possible number from the digits rolled on your dice and record your number on the game card.
 - Without revealing your number, each player asks a yes or no question like Eddie did, to help determine the order of the numbers. e.g. Is your number greater than 500? Is your number odd? etc.
 - Record the name of the player you think has the greatest number, in between number and least number on your game card.
 - Players reveal their numbers.
 - Record each player's number by their name and determine how many correct predictions you made.
 - Players score one point for each correct guess. Record your score on your game card.

Assessment:

Grade will be determined by the following:

- Completion of the game cards.



Comparing Numbers

Game Card Sheet

Cut out each game card.

Game 1		Score:
Your Number:		
Greatest	Between	Least

← Fold Here

Game 2		Score:
Your Number:		
Greatest	Between	Least

← Fold Here

Game 3		Score:
Your Number:		
Greatest	Between	Least

← Fold Here