*Mathematics Instructional Plan – Grade 2*

Place Value Roll

Strand:Number and Number Sense and Computation and Estimation

Topic:Addition strategies

Primary SOL:2.6 The student will

b) determine sums and differences, using various methods

Related SOL: 2.5

# Materials

* Place value roll chart (Hundreds board, 99 board or 200 Hundreds board)
* Number cubes
* Cover disks (Bingo Chip, etc.)

# Vocabulary

*ones*, *tens*, *place* *v­alue*, *digit*, *whole* *number*, *period*, *adding*, *subtracting*, *sum*, *difference*

# Student/Teacher Actions: What should students be doing? What should teachers be doing?

1. Instruct the starting player to roll the number cubes and add the numbers on the top faces. Students should then cover that number on the chart. *(Example: If one cube is 3, and the other cube is 4, students would then cover the number 7.)*
2. The next player rolls the number cubes, and the process repeats.
3. On the starting player’s second turn, he or she rolls the number cubes and adds the total to the sum rolled on the first turn. (To score totals greater than 10, the player can use two number cubes.)
4. Have players alternate turns until one player reaches 99 or higher.

# Assessment

## Questions

* + What strategies did you use to add? *(add on, double, estimate, paper and pencil)*
  + How could you check your answers? *(paper and pencil, calculator, subtraction)*

## Journal/writing prompts

* + What patterns did you notice on the board that were helpful?
  + What strategies did you use that were helpful?
  + Your chip sits on the number 84. What do you want to roll to help you get to 100? Explain your thinking.

# Extensions and Connections (for all students)

* Start at 99, and subtract the roll value of the number cubes instead of adding. The first player to reach zero wins.
* Use a 6 or 12-sided number generator.
* Use three number cubes on a 200s chart

# Strategies for Differentiation

* Give each pair a calculator to check answers in the beginning. Or, assign a third student to check answers.
* Students who struggle may start with basic facts and work to reach 50 (or an appropriate number).

**Note: The following pages are intended for classroom use for students as a visual aid to learning.**

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**Hundreds Board**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** |
| **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |
| **31** | **32** | **33** | **34** | **35** | **36** | **37** | **38** | **39** | **40** |
| **41** | **42** | **43** | **44** | **45** | **46** | **47** | **48** | **49** | **50** |
| **51** | **52** | **53** | **54** | **55** | **56** | **57** | **58** | **59** | **60** |
| **61** | **62** | **63** | **64** | **65** | **66** | **67** | **68** | **69** | **70** |
| **71** | **72** | **73** | **74** | **75** | **76** | **77** | **78** | **79** | **80** |
| **81** | **82** | **83** | **84** | **85** | **86** | **87** | **88** | **89** | **90** |
| **91** | **92** | **93** | **94** | **95** | **96** | **97** | **98** | **99** | **100** |

**Hundreds Board 0-99**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** |
| **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** |
| **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** |
| **30** | **31** | **32** | **33** | **34** | **35** | **36** | **37** | **38** | **39** |
| **40** | **41** | **42** | **43** | **44** | **45** | **46** | **47** | **48** | **49** |
| **50** | **51** | **52** | **53** | **54** | **55** | **56** | **57** | **58** | **59** |
| **60** | **61** | **62** | **63** | **64** | **65** | **66** | **67** | **68** | **69** |
| **70** | **71** | **72** | **73** | **74** | **75** | **76** | **77** | **78** | **79** |
| **80** | **81** | **82** | **83** | **84** | **85** | **86** | **87** | **88** | **89** |
| **90** | **91** | **92** | **93** | **94** | **95** | **96** | **97** | **98** | **99** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Two-hundreds Board** | | | | |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** |
| **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |
| **31** | **32** | **33** | **34** | **35** | **36** | **37** | **38** | **39** | **40** |
| **41** | **42** | **43** | **44** | **45** | **46** | **47** | **48** | **49** | **50** |
| **51** | **52** | **53** | **54** | **55** | **56** | **57** | **58** | **59** | **60** |
| **61** | **62** | **63** | **64** | **65** | **66** | **67** | **68** | **69** | **70** |
| **71** | **72** | **73** | **74** | **75** | **76** | **77** | **78** | **79** | **80** |
| **81** | **82** | **83** | **84** | **85** | **86** | **87** | **88** | **89** | **90** |
| **91** | **92** | **93** | **94** | **95** | **96** | **97** | **98** | **99** | **100** |
| **101** | **102** | **103** | **104** | **105** | **106** | **107** | **108** | **109** | **110** |
| **111** | **112** | **113** | **114** | **115** | **116** | **117** | **118** | **119** | **120** |
| **121** | **122** | **123** | **124** | **125** | **126** | **127** | **128** | **129** | **130** |
| **131** | **132** | **133** | **134** | **135** | **136** | **137** | **138** | **139** | **140** |
| **141** | **142** | **143** | **144** | **145** | **146** | **147** | **148** | **149** | **150** |
| **151** | **152** | **153** | **154** | **155** | **156** | **157** | **158** | **159** | **160** |
| **161** | **162** | **163** | **164** | **165** | **166** | **167** | **168** | **169** | **170** |
| **171** | **172** | **173** | **174** | **175** | **176** | **177** | **178** | **179** | **180** |
| **181** | **182** | **183** | **184** | **185** | **186** | **187** | **188** | **189** | **190** |
| **191** | **192** | **193** | **194** | **195** | **196** | **197** | **198** | **199** | **200** |