## Predict-It Four Square

## Grade 2

Activity 215
Relevant Chapters in the Digi-Block Comprehensive Teacher's Guides:
Book II: 3-4, Finding Sums, pp. 71-75
Book III: 1-4, Finding Sums, pp. 54-58

## Overview

Students predict the sum of two addends and mark their prediction on a game board. They check their predictions with blocks. The student who marks 4 sums in a square pattern on the game board wins the game.

Objectives
Thinking Skills: Students use mental math and apply their understanding of place value to predict sums of two 2-digit numbers.

Mastery Skills: Students learn to predict exact sums of two 2-digit addends. Students verify answers with blocks.

Materials
Each pair of students needs:

- Markers (beans, chips)
- Addend Spinner
- 1 block-of-100
- Access to paper and pencils
- Game Board, 1 per player (There are 2 game boards printed on the black line master - one for each student in a pair.)
- "Predict-It Four Square" Activity Sheet, 1 per student

Class Introduction
(15-20 minutes)
Use the Counter, Counter mat, or place value mat and blocks to develop students' ability to make accurate predictions. This is described in the DigiBlock Comprehensive Teacher's Guide, Level II, on pages 71-75 and in the Digi-Block Comprehensive Teacher's Guide, Level III, on pages 54-58.

Tell students they will be using their prediction skills to play a game called "Predict-It Four Square." To begin, display an overhead transparency of two game boards and tell students that in order to win they must cover four numbers to make a square:


Have two student volunteers play a round of the game. Have each half of the class serve as "advisors" to each player. The game proceeds as follows:

- Player A spins the spinner two times to name addends, predicts the sum of the numbers, and places a marker on the game board space that shows the predicted sum.
- Player A then proves his or her answer to Player B by modeling the problem with blocks.
- Once the Player B is convinced that the prediction is correct, the marker remains on the game board and it is Player B's turn.
- If the prediction is incorrect, the marker must be removed and Player B proceeds.
- Students continue playing until one player has 4 markers arranged in a square.


## Student Pair Activity

Organize students in pairs to play "Predict It Four Square." Give each pair a spinner, game boards, blocks, and markers. Have paper and pencils available.

After students have played the game, have them reflect on their work:
Some questions to guide discussion are:

- How did you predict the sum?
- How did you prove your answer?
- Which sums were easier/harder to predict? Why?


## Assessment

As students work, observe and note:
Do they -

- Predict sums with accuracy?
- Explain how they arrived at their predictions?
- Use the blocks appropriately to check their predictions?

Distribute the "Predict-It Four Square" Activity Sheet and have students complete it independently.

## Extension

- Adjust the level of the game by writing smaller/larger addends on the spinner.
- Have students create their own spinners and game boards.
- Have students try this activity with three addends. Adjust the numbers on the game board and on the spinner accordingly.
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## Predict-It Four Square

Erin needs your advice. She has spun 38 and 15 on the spinner and is predicting the sum. Which space should she mark? Draw an $X$ on it:


How did you decide which number to mark?

Colin has spun 34 and 29. He predicts the sum will be more than 60. Do you agree or disagree with him? Why?

Predict-It Four Square Addend Spinner: Use a paper clip and pencil to make a spinner.

[6-space spinner with numbers: 26, 53, 32, 29, 18, 45]

Predict-It Four Square Addend Spinner: Use a paper clip and pencil to make a spinner.

[6-space spinner with numbers: $\mathbf{2 6}, \mathbf{5 3}, \mathbf{3 2} \mathbf{2 9}, \mathbf{1 8} \mathbf{4 5}$ ]

