

### Go! The Capture Game

Go is an ancient board game from China. According to legend it was invented by an emperor about 4000 years ago to train his son's mind. It is played on a square grid. Two players take turns placing black and white "stones" on the intersection points of the grid. Once placed the stones are not moved. Each point has four neighboring points--diagonal neighboring points aren't considered. (Exception: points on the edge or in the corners have three or two neighbors.) A stone, or a connected group of stones, can be captured when enemy pieces completely surround it.

In the real game of Go, captures can happen during the game. We'll play a simplified version where the first player to capture a stone wins. Tournament play is on a 19 by 19 board. We'll play on a 9 by 9 board. Black moves first.

- 1) Play the capture game! We have some Go sets at school. You can also use a paper grid and pennies and dimes, or just colored pencils. See what you can learn. Can you develop some strategies?
- 2) How will the capture game be different if the winner is the first person to capture a certain number of stones, for example 3 or 5? If multiple captures are allowed could the game get into an endless loop, with the same board pattern repeating forever?
- 3) What can you learn about the real game of Go? (We're planning to offer it as an arts elective in September!)
- 4) How many points are there on the 9 by 9 board? The 19 by 19?
- 5) What's the least number of moves that can result in a capture?
- 6) Can the capture game end in a tie? (The board is filled and there are no captures.) In answering this question it's important to know that a player is always allowed to pass on his or her turn.
- 7) How many different ways could 41 black stones and 40 white stones be placed on the 9 by 9 board?
- 8) Have fun!

### The Return of Double Trouble!

Double Trouble is a crossword by RAF. Each clue has two answers, so you can do the puzzle two different ways. You may want to get 6 Across, 5 Down, and 8 Across early on, and make sure your other answers mesh with them! (Mix and match won't work!)

#### *Across*

1. "Two" in another language.
3. If you're playing in an important baseball game, you'll want to be on \_\_\_\_\_.
6. Machine that helps us keep time.
8. Famous twin from Greek mythology.
11. Primate with a large brain.
13. Part of a plant.
15. Strong emotion.
16. "Get \_\_\_\_!"

#### *Down*

2. In math, the column on the right.
3. Musical group.
4. At first, all alone, Adam felt odd. When he saw Eve, he said, "Now we're an \_\_\_\_\_ pair!"
5. Material used in old clocks.
7. It holds water or other drinks.
8. Kind of box.
9. Magazine name.
10. Electromagnetic waves.
12. If you want to catch the sun at sunrise, travel \_\_\_\_\_.
14. Latin term.

Try to solve both versions of Double Trouble!

Can you make your own crossword puzzle?

Have fun!