

Notes Concerning *Tic-Tac-Toe*

Level: Beginner/intermediate/advanced

Recommended # of players: 2

Materials: Tic-Tac-Toe gameboard; 6 Xs and 6 Os (or any 12 markers, 6 each of 2 types; see notes below)

Relationships: spatial reasoning

Notes:

The classic game of *Tic-Tac-Toe* (also known as *Noughts and Crosses*) has been around for several centuries, although its history is relatively unknown. One reason why it has endured for so long may be because it is so versatile. Although a game board and game pieces are supplied here on this CD, this game can be played virtually anywhere that a person can make marks on a surface, including on a chalkboard or paper or even sketched into dirt or sand.

Children as young as 3 years of age can play this game, although they may not play precisely according to the rules or recognize the competitive nature of the game. Frequently, when 3-year-olds play this game, they believe that the goal is simply to get 3 in a row, and that if both players achieve this goal, both have won. They do not recognize the temporal nature of the game; that is, that the *first* person to get 3 in a row is the winner.

Beginners may find it challenging to track all 8 of the potential rows of 3 that they can make (young children often fail to notice the diagonal), and may not notice when the other player is about to make a row of 3. Once they learn how to block, they may focus on blocking, and fail to notice a row of 3 that they could have made. As they become better able to coordinate these 2 goals (getting 3 in a row and blocking the other player from doing so), they may begin to notice how they can set up 2-way strategies for winning. This requires thinking 2 or more moves ahead.

Teachers interested in learning more about developmental stages in children's play of Tic-Tac-Toe can read more in DeVries, R. & Fernie, D. (1990), Stages in children's play of Tic Tac Toe. *Journal of Research in Childhood Education*, 4, 98-111.