

Strategic Games Year 2: Connect 4

Introduction

Children play Connect 4 games on-line. The games can be found amongst – Level 2 - More Thinking Games at the Interactive Fun Puzzles website

<http://www.vtaide.com/png/puzzles.htm>

There is a 2-player game and a game to play against the computer.

What will the children learn?

Logical games (both on and off the micro) provide a wealth of opportunities for children to acquire and practise the use of a wide range of problem solving skills and strategies. In games children encounter problems, often of their own making, under sets of conditions that are clearly defined and well understood by the players. Games are microworlds for learning and could have a valuable place in the school curriculum.

Strategic games develop:

- problem solving skills such as trial-and-error investigation, hypothesis testing and searching for relationships
- reasoning skills such as inference, deduction analysis and evaluation
- social skills of cooperation, communication and constructive argument
- life skills such as perseverance, and the ability to see initial failure as a challenge and to learn from it.

The games provide opportunities to stretch the abilities of all pupils and allow these basic problem solving skills to be applied in novel and motivating contexts.

Equipment

- An electronic whiteboard or projector would be useful for introducing the game.
- Access to the Connect 4 game at <http://www.vtaide.com/png/puzzles.htm>

The activity

Most children will have played this game. Players take turns to drop counters into the grid each trying to make a line of 4. Full instructions are given on screen.

Initially, the game is best played against the computer (choose the c option) by pairs of children cooperating to develop strategy.

Once they have developed a strategic approach children may like to play against one another (2 option).

When using the 2-player game begin by selecting New Match. There will then be a prompt to fill in the names of the players, and choose who is to play first.

Why are we using ICT?

ICT versions of board games provide a focus for problem solving activities. On-line games can be played at home by children with access and have the advantage over board games that the pieces never get lost. Additionally, the computer polices the game by preventing illegal moves, prompting turn taking and declaring the winner.

Where do we go next?

Connect 4 is essentially a variant on the game Gomoku, as is the game noughts and crosses – see the Year 5 activity in this collection - [W57 Strategic Games Y5 Gomoku](#)

Another variation on the same theme is Triplets which can also be found on the Interactive Fun Puzzles website <http://www.vtaide.com/png/puzzles.htm> among Level 2 More Thinking Games. Here children play against the computer trying to get 3 in a row but using the same counters. In other words the row may include the opponent's counters as well as your own.

Further information

The Wikipedia entry about the game http://en.wikipedia.org/wiki/Connect_4 includes the following information:

Connect Four (also known as Plot Four) is a two-player board game in which the objective is to be the first to get four of one's own discs in a line. The name Connect Four was coined by Milton Bradley in 1974.

The page also gives the rules and some advice on strategy and tactics.