Digital writing

Objective
Compile a message using only two discrete elements: black and white pawns.

What do we need
Square boards with 8 rows and 8 columns, black and white pawns, paper strips on which there are indications of the message that should be communicated by the players, for ex.: go to Rome black dog love to talk doing things 12 friends attention: sentences and words that you want to communicate must consist of a maximum of 8 characters.

To build the board

What do we need
A square board 25x25 cm (for ex made of plywood 4-5mm)

8 blue velcro strips: we use only the part with the hooks
8 20 cm strips of white velcro: we use only the soft part
8 20 cm strips of black velcro: we only use the soft part
stapler

What to do
Staple the 8 blue strips on the wooden board. The strips must be placed close and parallel to one another covering the central part of the board to form a square. The staples must be positioned perpendicularly to each strip so as to draw the 8 squares like in a chessboard.
Cut the black and white strips in 2 cm long pieces: you will obtain the pawns.

To play

What to do
Each player picks a paper strip. The objective is to communicate the message to the others by placing the pawns on the chessboard. Obviously he mustn't show his paper strip to anyone.
Rules:

- the pawn must occupy one entire square, one is not allowed to cover only one part of it
- one must occupy all the squares, no square can remain uncovered

When finished each player shows his board and the other players try to guess the message.
Things to observe
Some will have created a symbolic drawing, other will have used the characters of messages, others will have invented a kind of code. If the students know it, some might use a Morse code.

Discuss together the characteristics of each method, of their advantages disadvantages, limitations posed by such a small board.
When analysing the use of a code, be it a Morse or a personal code, it might be worth beginning to think about the ASCII code, which uses exactly 8 bit.
riga della scacchiera.