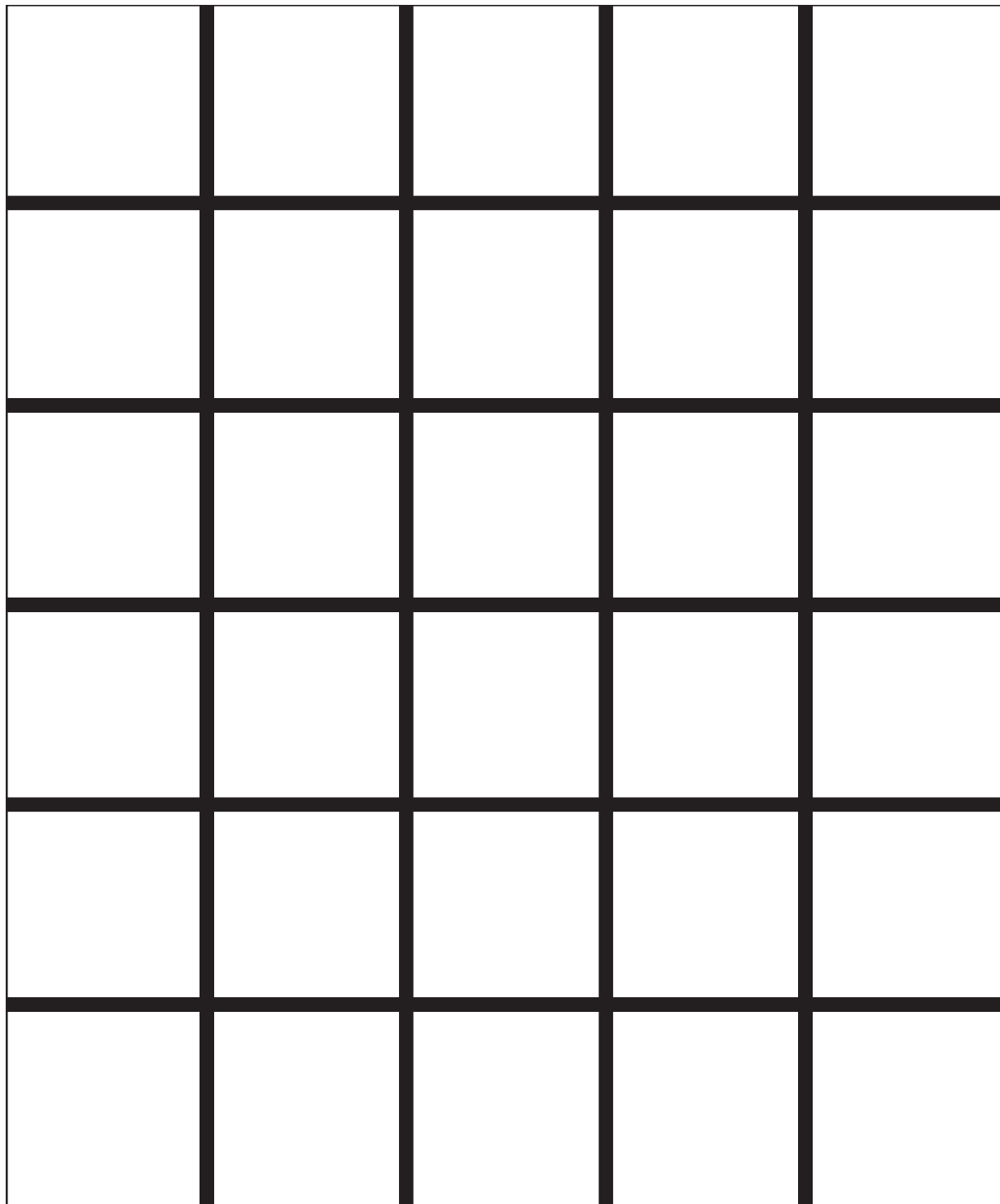


MATH ACTIVITIES FOR HOME
SOUTH OF THE SAHARA: DARA GAME BOARD



See page 43 for game rules.

MATH ACTIVITIES FOR HOME

SOUTH OF THE SAHARA: DARA HISTORY & MATH QUESTIONS

Mental Wrestling

Also known as Derrah, this centuries-old game is traditionally played by the Dakarkari people in what is now the Sokota State region of Nigeria.

Originally, the two players each chose 12 distinctive stones or pieces of pottery as their markers on a 5x6 grid drawn on the ground.

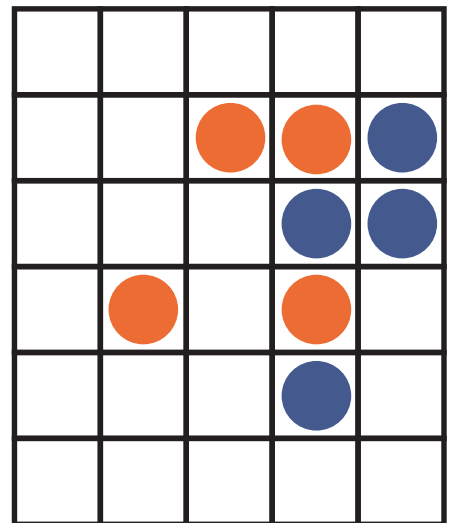
Historical accounts show that wrestling played a large part in the education of Dakarkari youth. Dara is like a form of mental wrestling, teaching mathematical thinking and problem solving to outmatch an opponent.

Game theory exposure

Game theory is the mathematical study of strategic decision-making, something that Dara has a lot of! Dara is the ancestor of chess, sharing a focus on deductive reasoning and multi-step problem solving, but differing in that the placement stage is also a part of the strategy.

Test your strategic decision-making with this question:

- *There is a way that one of these players is guaranteed to win. Would you rather be the orange player or the blue player? It is the orange player's turn.*



MATH ACTIVITIES FOR HOME

SOUTH OF THE SAHARA: GAME RULES (ACHI & DARA)

ACHI

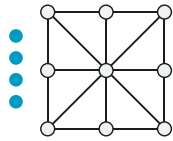
How to win

Be the first to connect 3 of your rocks in a row, vertically, horizontally, or diagonally.



Game Setup

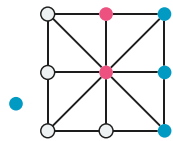
4 rocks per player
Empty board



Phase I: Place rocks

1. Place rocks on the board

Players take turns placing one rock at a time on the empty spaces of the board.



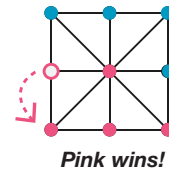
Blue wins!

If a player connects 3 rocks in a row during this phase, he/she wins the game.

Connections can be vertical, horizontal, or diagonal.

Phase II: Move rocks

2. Move rocks to empty spaces



Pink wins!

Once all 8 rocks have been placed on the board, one space will be left empty. Players take turns moving one of their rocks to an empty space next to it.

3. Move when possible

If a player can move, he/she must move. If a player cannot move, his/her turn is skipped.

DARA

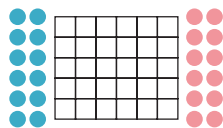
How to win

Be the first to capture 10 of your opponent's rocks.



Game Setup

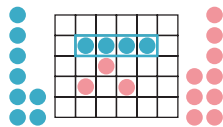
12 rocks per player
Empty board



Phase I: Place rocks

1. Place rocks on the board

Players take turns placing their rocks on empty squares.

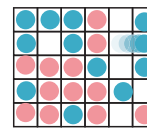


X

2. Avoid placing more than three rocks in a horizontal or vertical row

Having more than 3 rocks of the same color in a row is not allowed at any time.

4. Capture an opponent's rock

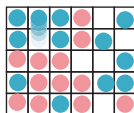


Capturing happens after all rocks have been placed. To capture, a player lines up a new horizontal or vertical row of 3 of his/her rocks.

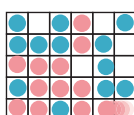
When this connection is formed, the player can remove any one of the opponent's rocks from the game. Only one rock can be captured per move, even if multiple connections of 3 are created with one move.

Phase II: Move rocks

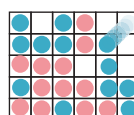
3. Move a rock horizontally or vertically to an empty square



✓



✓

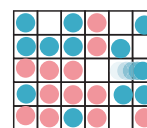
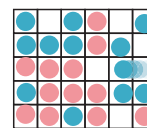


X

Once all rocks have been placed on the board, players take turns moving one of their rocks one space horizontally or vertically, but NOT diagonally.

If a player cannot move, his/her turn is skipped.

Is reforming the same connection acceptable?



Each connection of three rocks can be reformed only once by moving one rock out and back in to capture another rock.