

Grade / Age: 10-18. years old ones

Topic: Preparation for playing globechess, **Manipulative**

Subtopic: Classical chess board, demonstration chess board using a classic chess board or a demonstration board to learn the moves of a game of spherical chess

Keywords: chess, globechess, logical games, perception of space, manipulative

Area: logical games, perception of space, manipulative

Single / team work: individual/ group

Language: English and Hungarian

Duration: 2x45 minutes

Description of the Task:

In advance preparation:

1. a chess board and/or a chess demonstration board: the latter can be homemade or ready to buy.
4. Chess sets are usually available in every school or at an average family.
5. The wall-mounted chess demonstration board is less common, but it can be easily and inexpensively obtained. [A folding magnetic type with pieces for less than 40 000 HUF (the board: <https://tinyurl.hu/7A2I> magnetic figures: <https://www.sakkuzlet.hu/demonstracios-sakktablak/magneses-sakkfigurak/>) An advanced type: <https://tinyurl.hu/6nMe>



6. However, you can easily make one out of cardboard, using (very cheap) magnetic foil discs (e.g. available here) <https://tinyurl.hu/0dsV>. The magnetic discs should be glued both to the corresponding space on the back of the board and to the back of the cut-out discs containing the figures (drawn by the

children themselves). You can also put a self-adhesive magnetic strip on the back (e.g. <https://tinyurl.hu/hxzL>), which is easier to stick on.

Making the board in this way with the children will make it even more fun to play with!

You can attach both homemade and roll-up or other thinner, simpler wall magnet boards to the school magnet board - if you have one available.

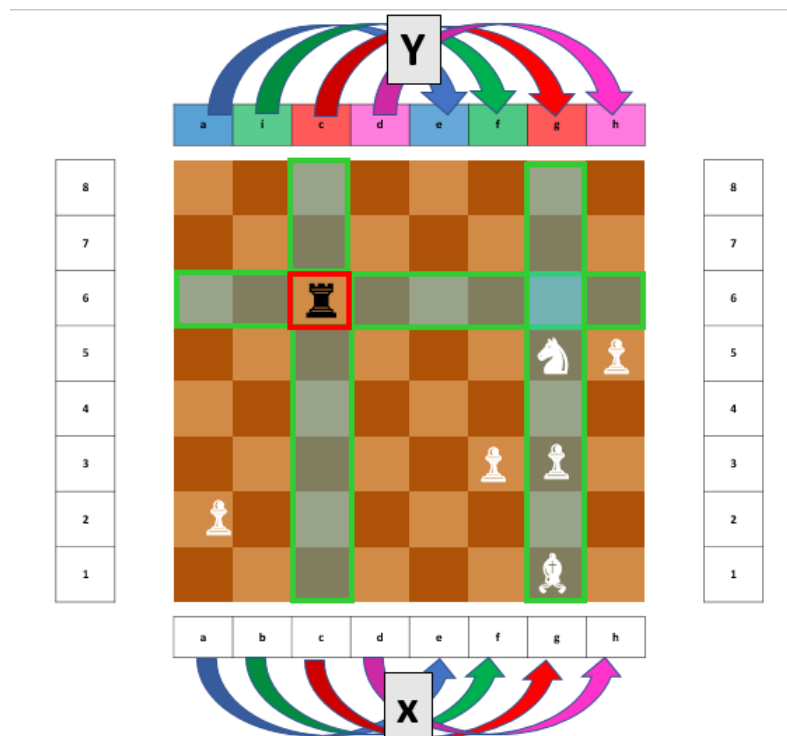
If the table is ready, the game can start!

Possible tasks:

1. Where the rook hits. Simple exercises:

Place a rook of one color on the board, then place several pieces of opposite colors and ask which pieces the rook can capture. (In Figure 1, pawns cannot, officers - knight bishop, can.)

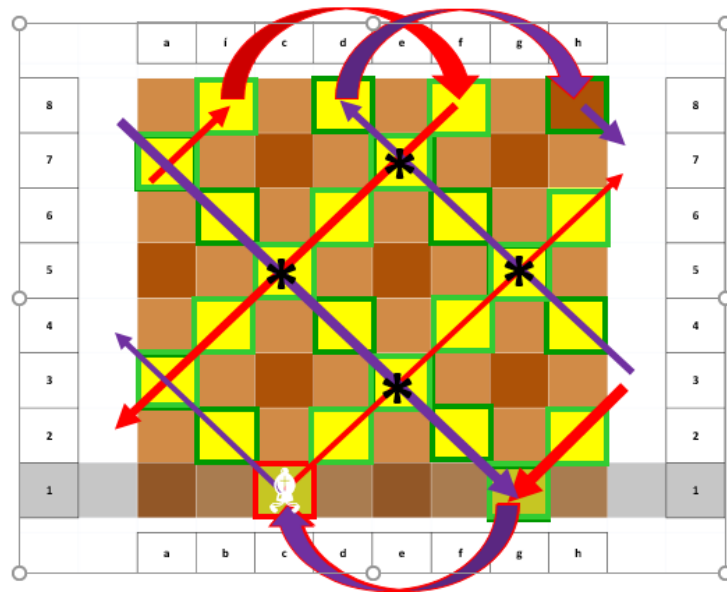
In simpler cases, there should be no covering pieces. (Which would make an additional piece not captureable, whereas if that piece were not captureable, it would be captureable. In the figure, for example, if there were no bishop or knight, the g3 pawn would be in capture. You can gradually make the positions more and more complicated, with more and more pieces and more and more cover.



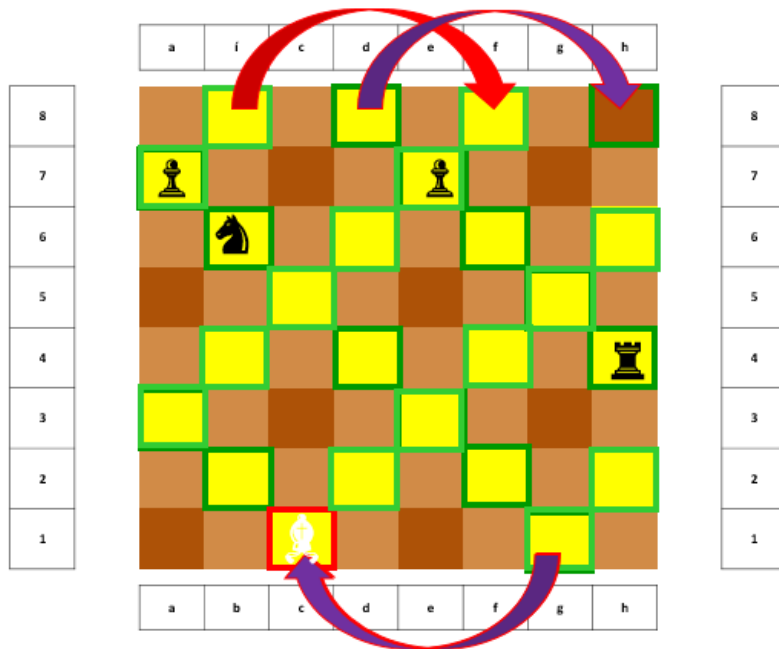
2. Similarly, where does the Bishop threatens problem:

Since the possibilities of a runner's move are more complex, let us first present a diagram showing the possible moves of a runner (at c1, clear). Arrows indicate the

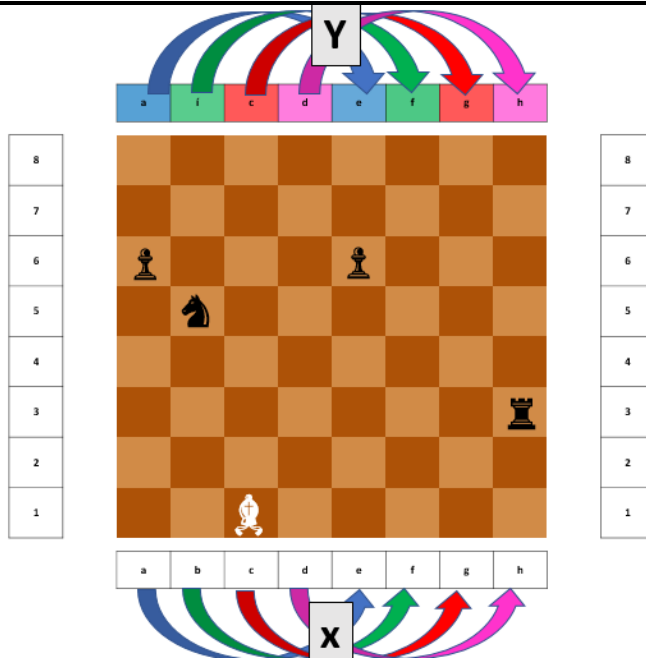
runner's path, asterisks the intersections - i.e. the points that the runner reaches from both directions.



An easy example exercise to solve, as the possible paths of the runner are highlighted on the board.

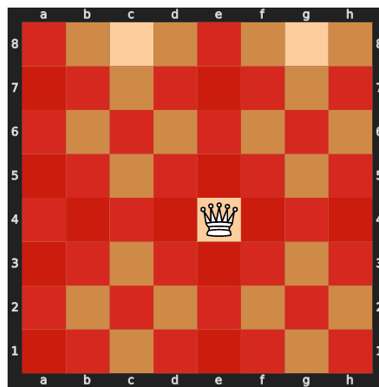


The same problem, but without highlighting the paths of the Bishop.

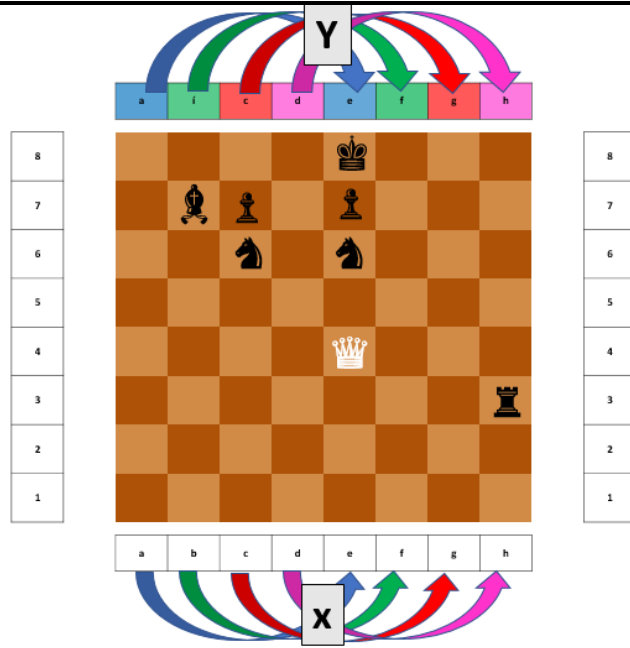


3. Where the Queen hits tasks:

The queen's path - commonly obtained by superposing the rook and bishop paths. This is shown in the following figure.



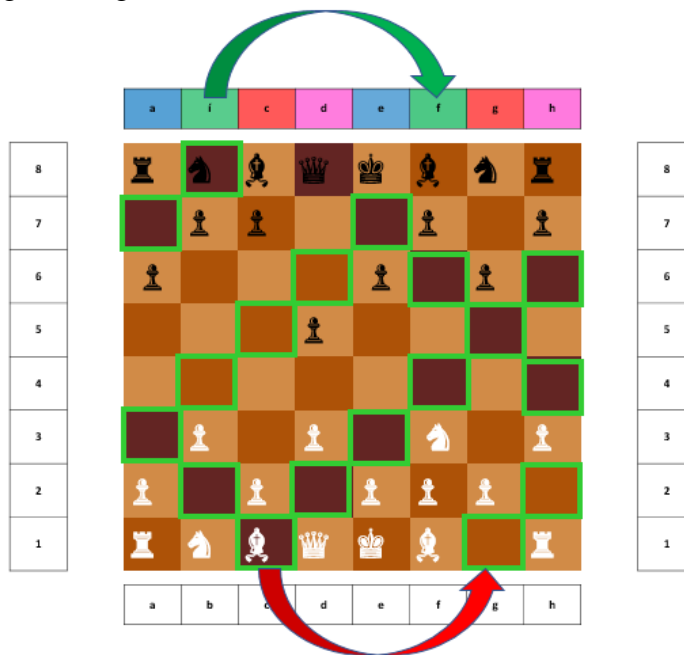
Where the queen threatens example problem 1.:



Again the pawns not, but all the officers however can be hit, reaching the clear leader of them.

4. Advanced problems:

White is on the move and in this example. "Thanks" to the unfortunate pawn position, white attacks the queen, the dark bishop and the dark knight. The paths are highlighted in green.



Same situation, but without highlighting the paths of the Queen, also without the row and column names.

Solutions of the Task:

The solutions are parts of the problems.

Priority knowledge:**

Being familiar with the chess moves can be an advantage, but also a disadvantage. Because you will have to get used to extended possibilities of moves. Also, after getting used to globechess moves, it might be difficult to return to traditional chess. (It is similar, like the case of babies learning two languages in their early childhood. They can still easily take such hurdles. That's why it's a good idea to start playing chess at an early age.)

Comments:

A free online application will soon be available to play a traditional chess board with the rules of sphere chess. <https://globechess.uni-mate.hu/> It needs registration.

How it is linked to other subjects/topics/fields:

Technology (when making the board) mathematics (for geometry, logic, spatial vision).