TEACHER SHEET

BP 30 - F 62930
WIMEREUX - FRANCE
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QUORIDOR

LEARN THROUGH PLAY

LOCATE, MOVE, ANTICIPATE

TOPIC: Displacement on a grid pattern

- **Objectives:**
  - learn to navigate in space and move on a grid pattern;
  - learn logical reasoning;
  - learn to anticipate actions and events.

- **School level:** 4-10 years.

Main objectives of this activity are to learn how to locate in space and anticipate actions.

• The teaching sheet proposes several intermediate exercises to learn how to locate oneself, move on a grid pattern and solve simple mathematical issues. You'll also find several didactical variations to decrease or increase the game's level of difficulty.

Objectives of the exercises:

- **Exercise 1** ⇨ Locate oneself in a simple labyrinth.
- **Exercise 2** ⇨ Locate oneself and move on a grid pattern.
- **Exercise 3** ⇨ Choose the shortest path between 2 points.

Once these exercises are complete, pupils will be able to play a game in its original, simplified, cooperative or mathematical version, and will achieved the following:

- **Knowledge objective:** understand a rule.
- **Know-how objective:** observation and concentration; spatialisation; anticipation; resources management; formulation of short and long-term strategy.
- **Behaviour objective:** respect for the opponent and the rules, communication.

• The pupil sheet can be kept by pupils. It outlines the game rules with a vocabulary adapted to them, as well as a word list to be kept in mind. (Those words could be explained in class).

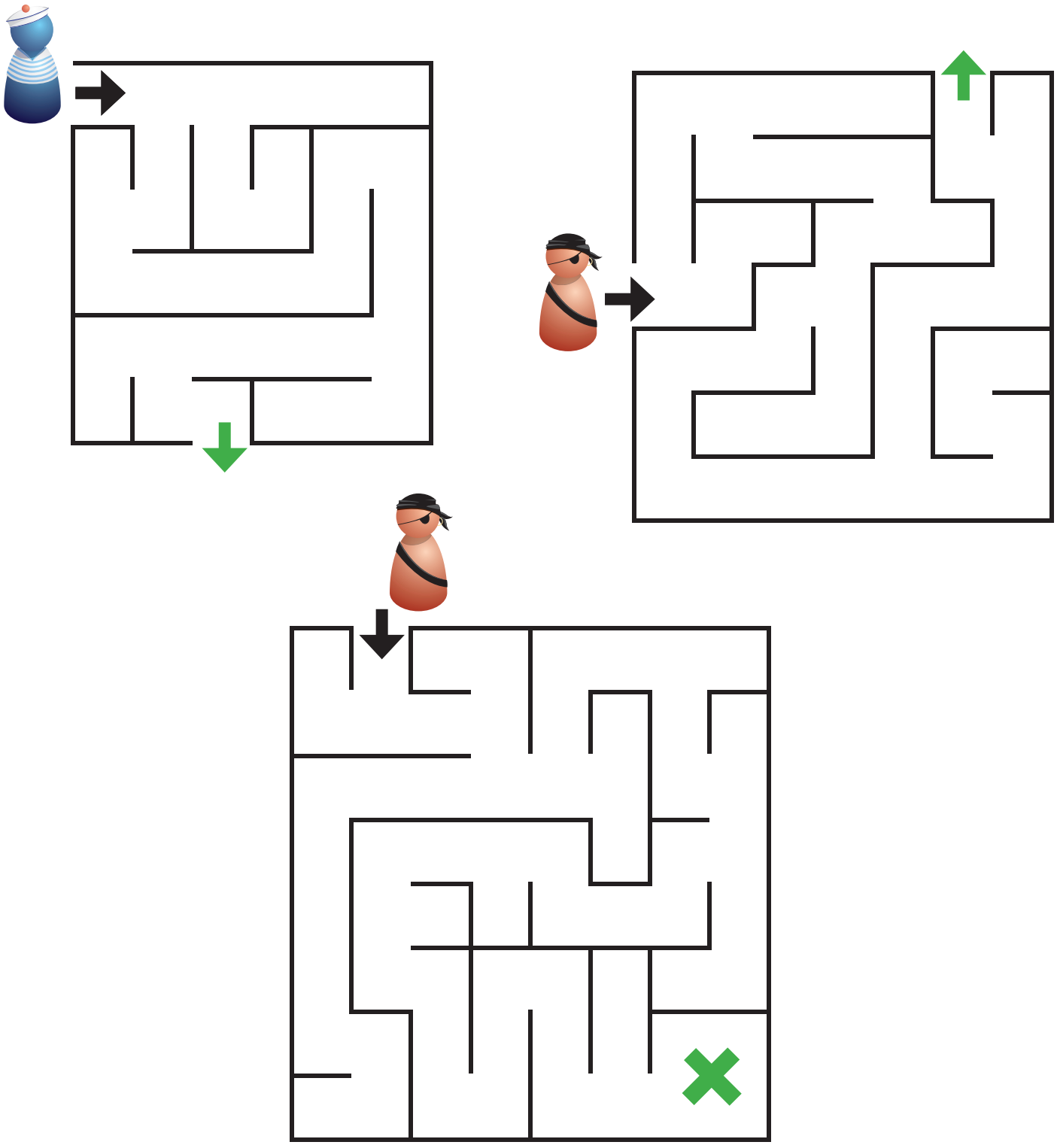
Intermediate exercises

Exercise 1: Get out of the labyrinth.

⇨ **get your bearings in a labyrinth.**

Note: Teachers can either work with pupils on the below illustrations or directly create labyrinths on the board, using fences to create walls. The difficulty level of the exercise can be modulated by decreasing the number of squares or/and the number of walls to bypass.

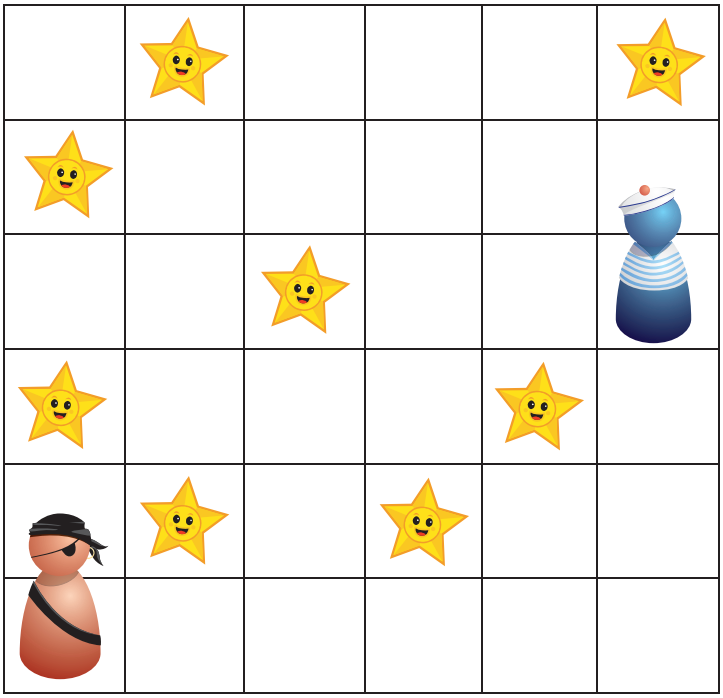
Instructions: Help the pawns to get out of the labyrinth.



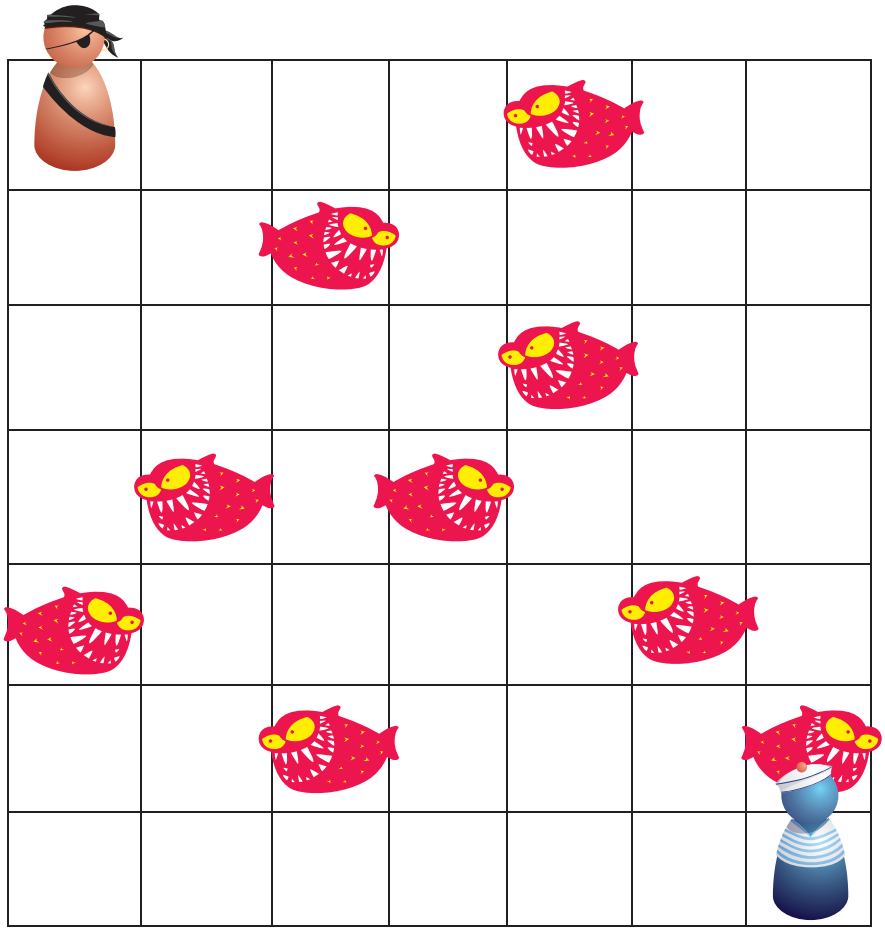
Exercise 2: find the correct path.

⇨ **Learn to move on a grid pattern.**

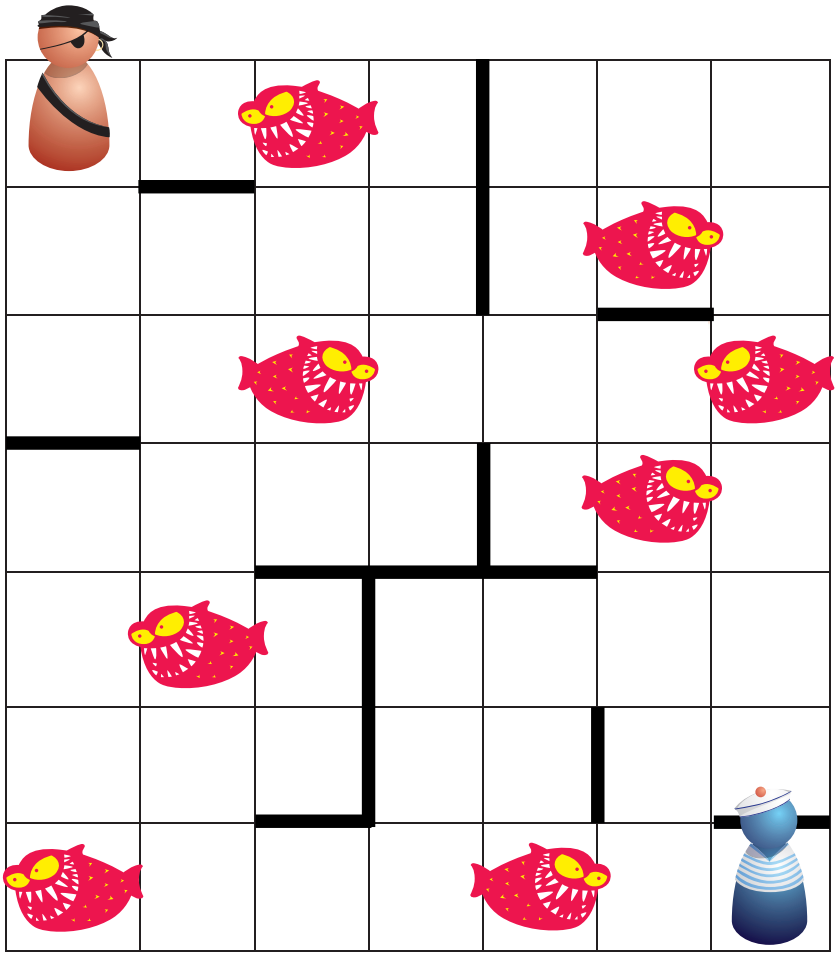
A) The red pawn must join the blue pawn, on its way he must go through all the stars.



B) Help the red pawn to join the blue pawn avoiding the squares with a fish.

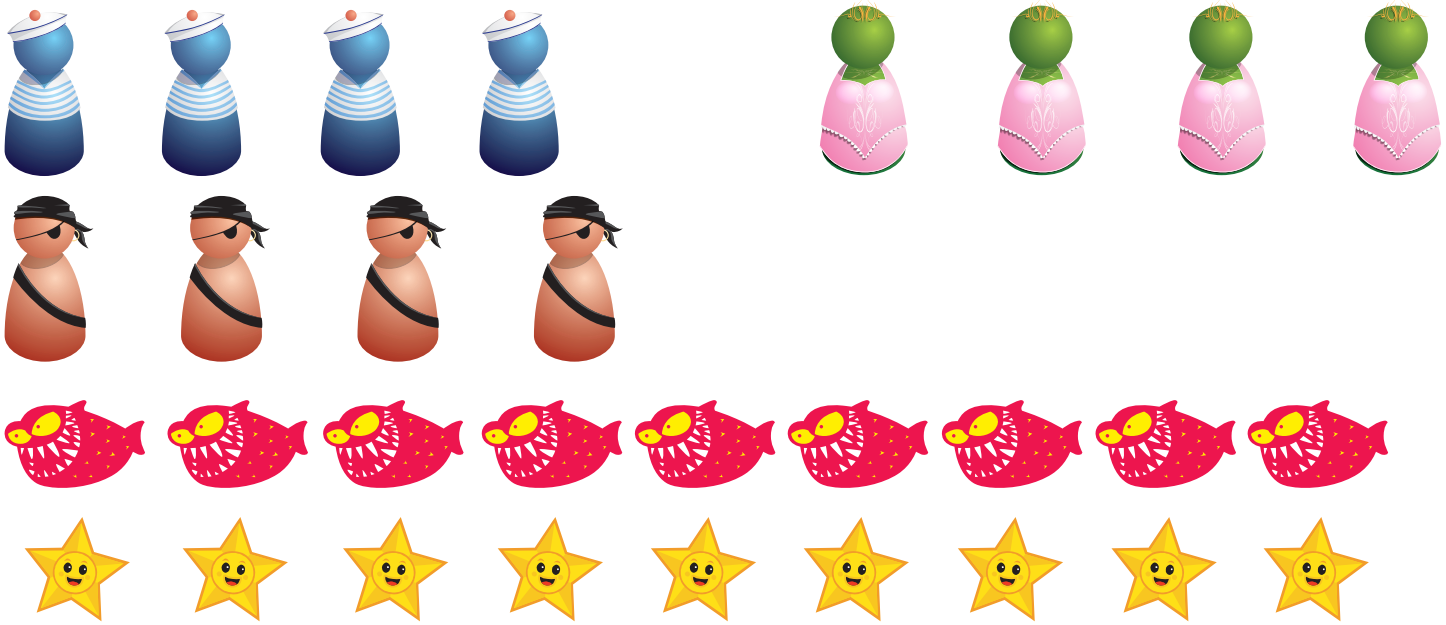


C) Help the red pawn to join the blue pawn, avoiding the squares with a fish. The Pawn cannot cross any of the walls, they must be bypassed.



Note: Teachers can reproduce or create the path directly on the board using the fences of the game and using pawns as characters. The images below can be cut out and laid on the board. It is possible to complicate the exercise by asking the pupils to find the shortest way to reach the objective.

IMAGES TO BE CUT OUT

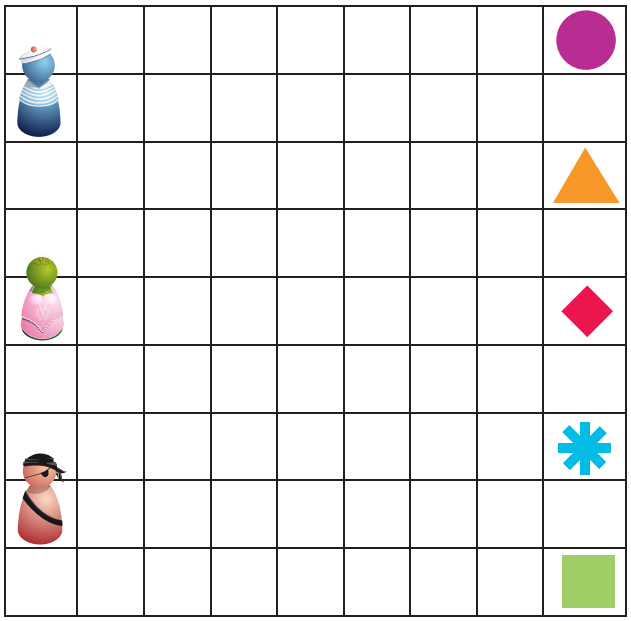


Exercise 3: Find the correct object.

⇨ **Learn how to move on a grid pattern.**

Follow the directions to discover what each character is going to find. Pay attention, you must count the squares of the grid pattern.

Note : Teachers can use the Quoridor board to create more exercises using the same principle.



 2➔ 4🡻 3➔ 1🡻3➔

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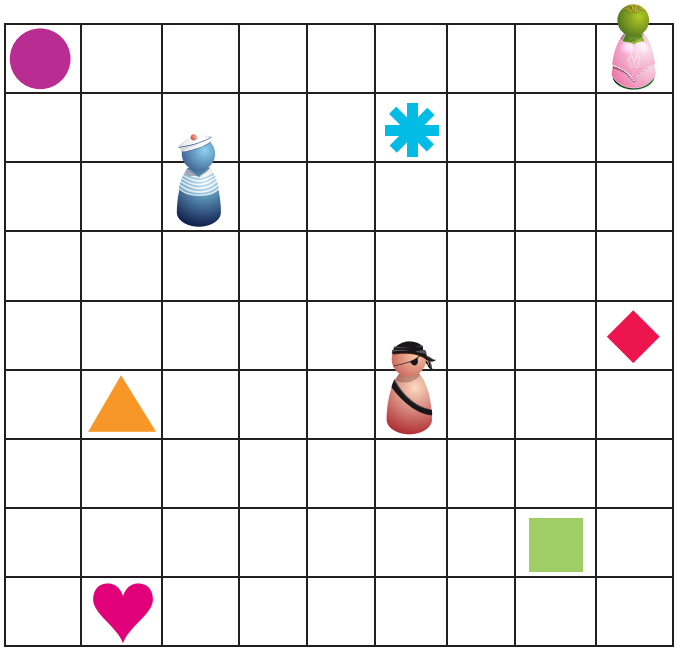

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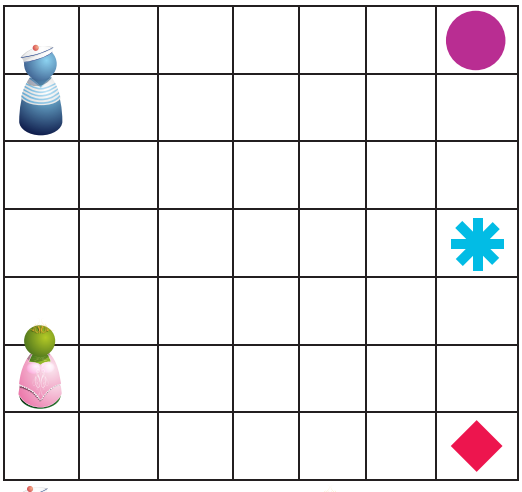

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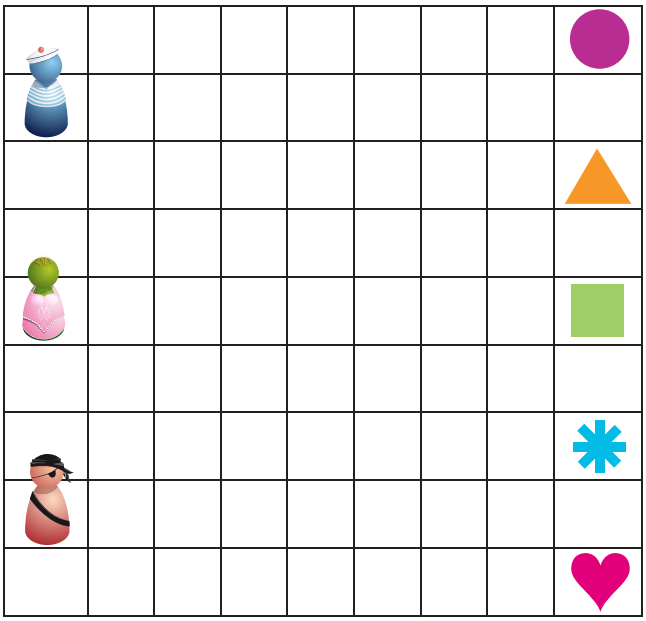

 4➔2🡹3🡕 2🡹1➔

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 2🡖 4➔3🡻2🡕

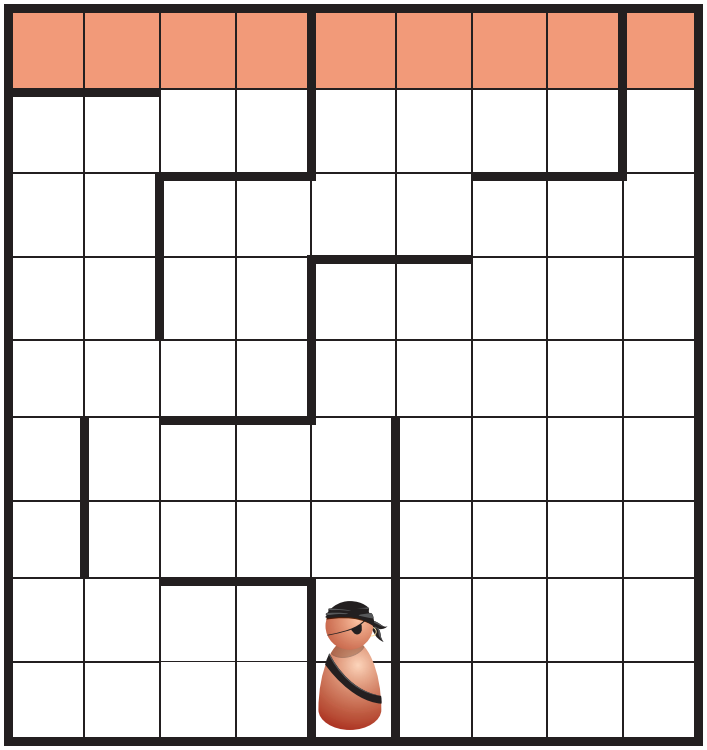
Exercise 4: Find the shortest path

⇨ **Choose the shortest path between two points.**

Important : the pawns are moved backward, forward, right and left but never diagonally. Pawns must bypass the walls.

A) What is the **shortest path between two points?**

Finish



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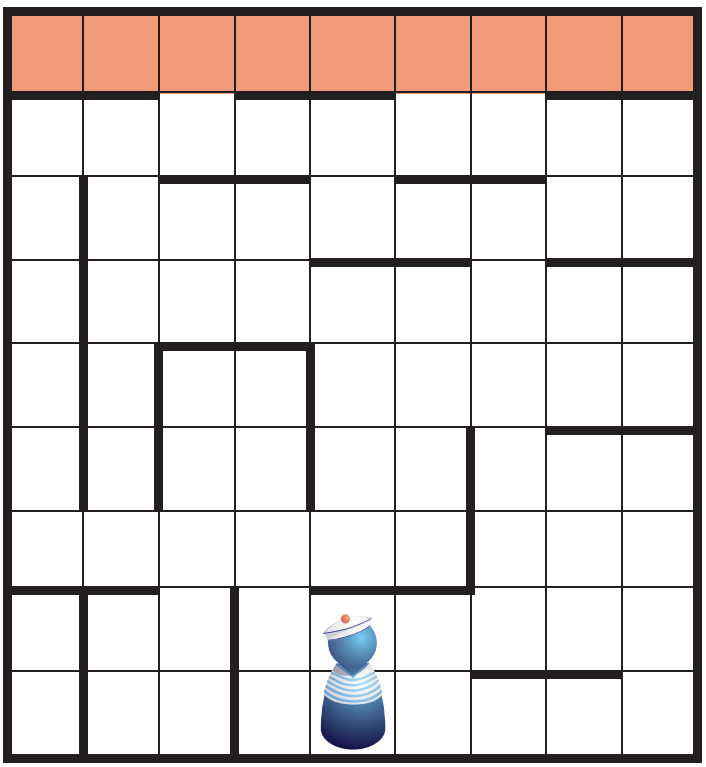

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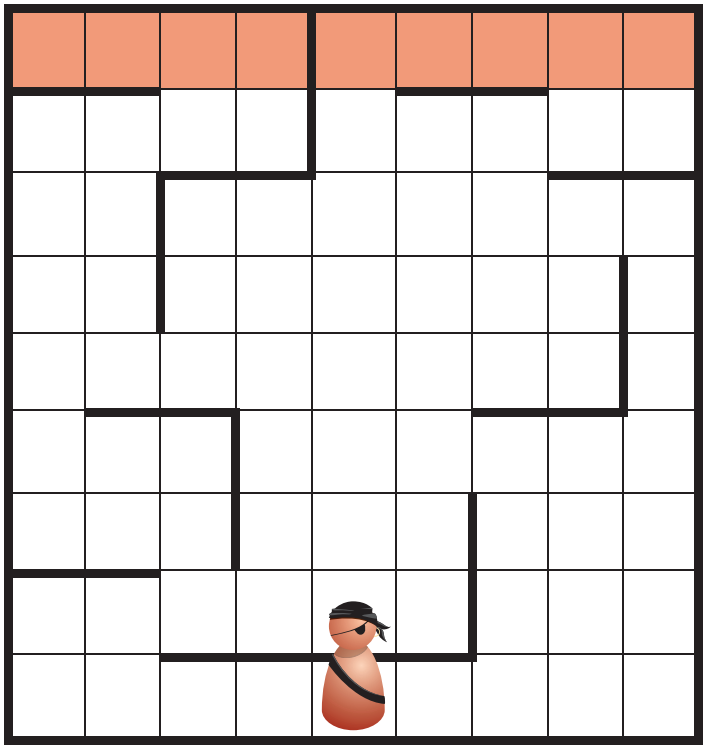
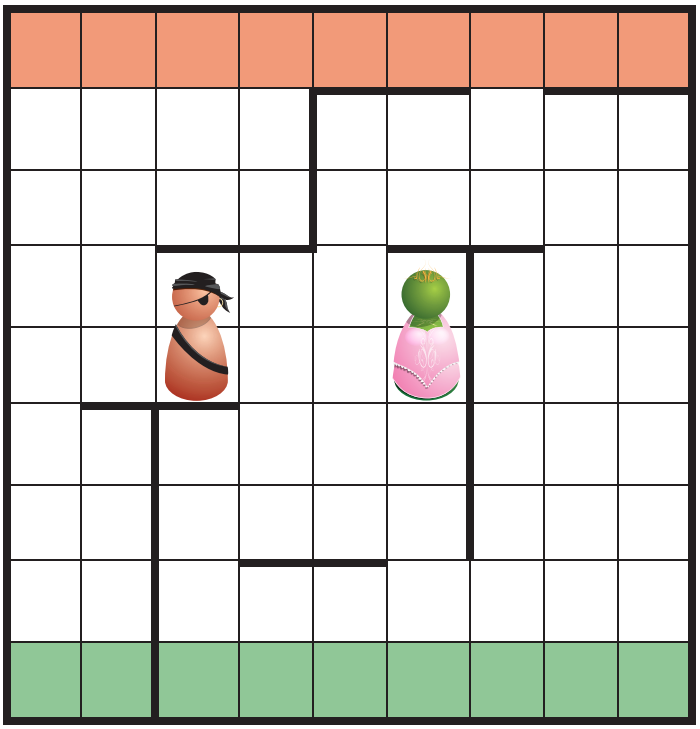


B) If each player takes the shortest path, which one will reach the opposite finish line first?
The green pawn much reach one of the squares on the red line, the red pawn must reach one of the squares on the green line.

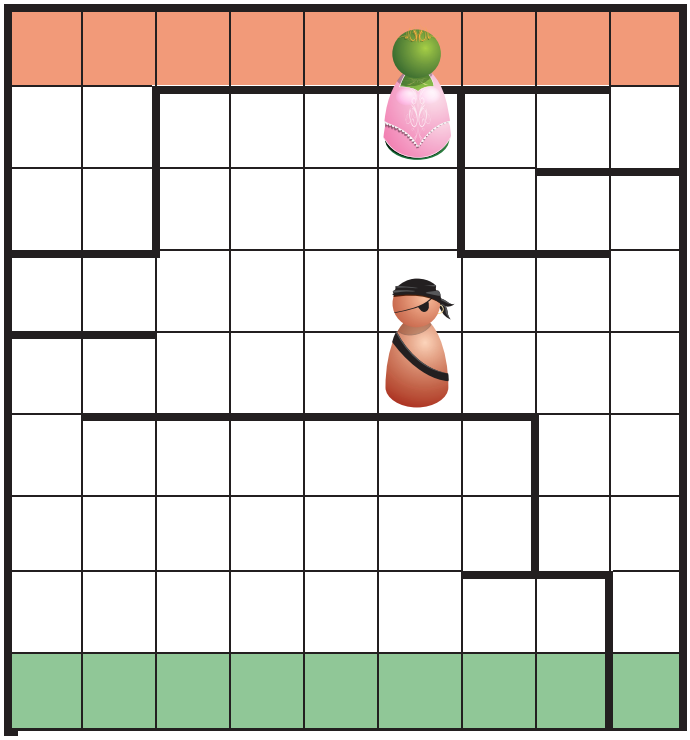
Note: Teachers can choose to work directly on the worksheet or reproduce the exercise on the Quoridor board using fences.

Green must reach this line



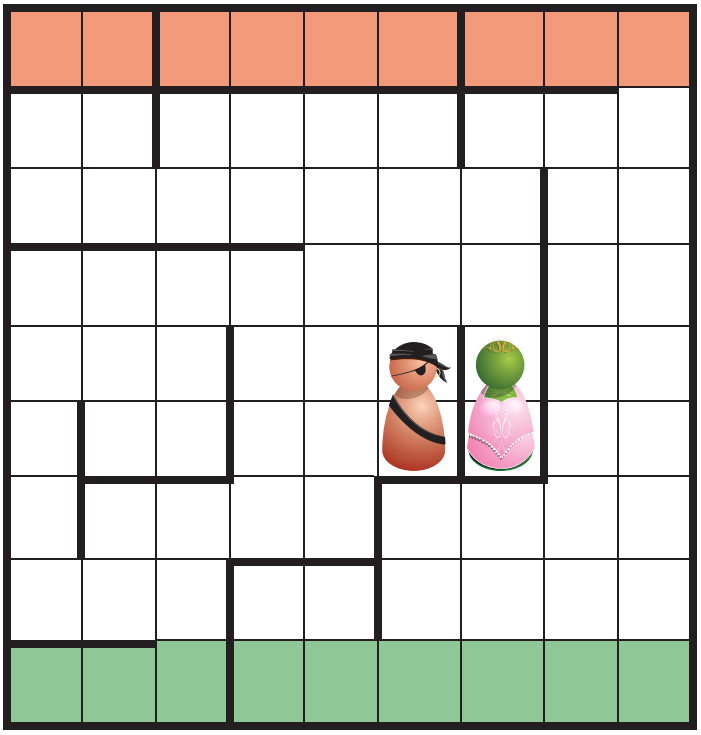
Red must reach this line

Green must reach this line



Red must reach this line

Green must reach this line



Red must reach this line

Let's play QUORIDOR !

Play a complete game 15min. From age 8+

⇨ Aim of the game

To be the first player to reach the opposite side of the board. (fig.7)

⇨ Simplified game's rule:

Set up

At the beginning the board is empty. Each player chooses and places his pawn in the center of his base line (fig.1). They then take 10 fences (5 for a 4 player game)

Player's turn

On turn the player may either:

• move his pawn.The pawns are moved one square at a time, horizontally or vertically, forwards or backwards (fig.2), never diagonally. The pawns must get around the fences (fig.3).

OR

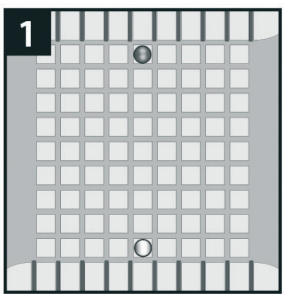
• place a fence between 2 sets of 2 squares. It can be place horizontally or vertically. (fig. 4).

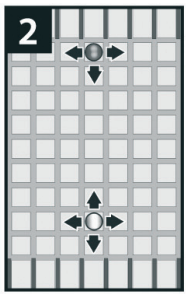
Important points:

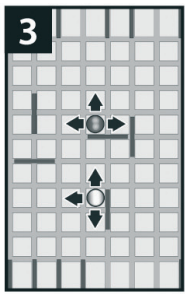
• **Fair-play :** it is forbidden to lock up an opponent's pawn (fig.5). An access to the goal line must always be left open

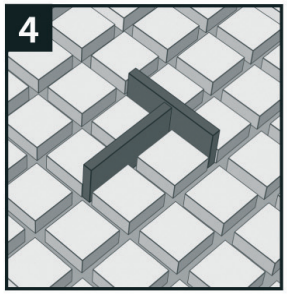
• **Face to Face:** When two pawns face each other on neighbouring squares which are not separated by a fence, the player whose turn it is can jump the opponent's pawn (and place himself behind him), thus advancing an extra square (fig.6). If there is a fence behind the said pawn, the player can place his pawn to the left or the right of the other pawn (fig.8, 9 and 10).

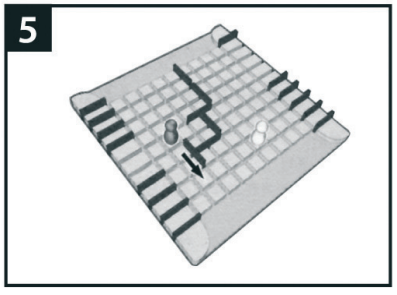
End of game: The first player who reaches one of the 9 squares opposite his base line is the winner (fig. 7).

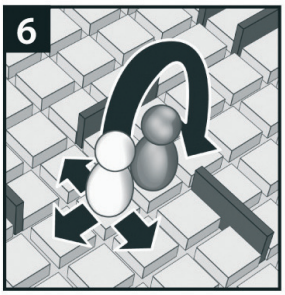


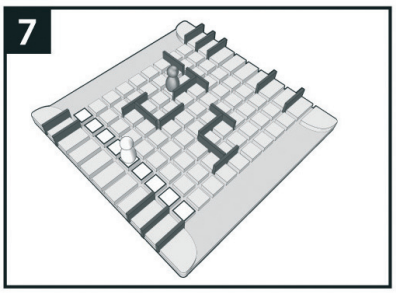


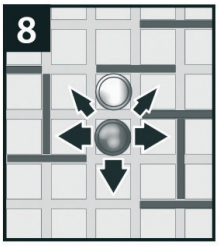


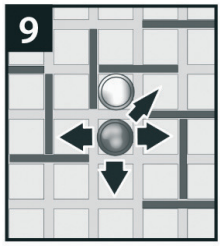


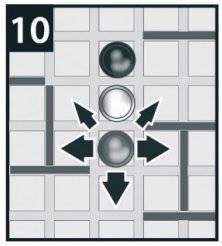












⇨ Educational variation of base game

Simplification (from 6 year's old):
It is possible to modulate the difficulty and game duration by decreasing the board dimension with covers (for example, board of 7x7 or 5x5). In this case it is advised to decrease also the number of fences of each player.

Cooperation: play in a cooperative way. Create 2 teams of 2 players, each with 5 fences. The goal for the team is that one of the player of the team reaches the line opposite to one's base line before a pawn of the opponent. Rules of move and placing fences stay unchanged.

Mathematical variation: once the pupils are familiarised with the game it is possible to add a mathematical dimension to the base game.

Rules of move and placing fences stay unchanged, but during the game, each player notes the step of the opponent pawn, following the below instructions :

1 step forward = 1 point ; 1 side step = 0 point ; 1 step backward = -1point.

The game ends when the 2 pawns have arrived on the line opposite to one's base line. When one of the players has reach his finish line, he does not move his pawn anymore but can still, in turn, place fences to bother his opponent. The winner is not the first to arrive but the one who's path earns more points.

PUPILS SHEET

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QUORIDOR

LEARN THOUGH PLAY

LOCATE, MOVE, ANTICIPATE

Play a complete game 15min. From age 8 +

⇨ Aim of the game

To be the first to reach the line opposite to one's base line.

⇨ How to play

At the beginning the board is empty. Choose and place your pawn in the center of the first line of your side of the board, your opponent takes another pawn and places it in the center of the first line of his side of the board (the one facing yours). Then take 10 fences each.

On your turn you may either:

• move your pawn.The pawns are moved one square at a time, horizontally or vertically, forwards or backwards, never diagonally. The pawns must bypass the fences. If, while you move, you face your opponent's pawn you can jump over.

OR

• place a fence between four squares on the board. By placing fences, you force your opponent to move around it and increase the number of moves they need to make. But be careful, you are not allowed to lock up to lock up your opponents pawn, it must always be able to reach it's goal by at least one square.

Then it is your opponent's turn, he can also move his pawn or place a fence.

Advice : your fences are precious and limited resources.Be economical with them and place them at the best time.

⇨ End of the game:

The first player who reaches one of the 9 squares opposite his base line is the winner

Note : if you want to play with 4 players, each takes 1 pawn and 5 fences. Each player places his pawn in the center of the first line of one side of the board. Rules stay unchanged

⇨ Words to be kept in ming

Horizontally, vertically, diagonally, force, extend, economise, bypass, resources.