

Bacterial Sensing Game Rules:

Types of squares:

- **Grey:** normal square, you can end a turn there with no other effect.
- **Black Skull:** antibiotic. If you land on this square, you lose a life token (unless you can play a special card to offset the toxin). If you don't have any more life tokens, your bacterium returns to the start.
- **Yellow:** food. The first player to end a turn on a food square picks up the food token and can play it on any turn (including the turn when they picked up the token) to go forward **two squares**. Once the token has been picked up, any player that lands on the square must immediately move two spaces forward.
- **Blue:** pick a card. Each card has special instructions for how to play it and when you can use it.

Movement:

- Roll the die to determine the number of squares that you move forward.
- Game cards and food tokens can also be used to control movement.

Setting up the game board:

- The game boards are modular and can be attached in multiple configurations.
 - o Always start the board design with the "Start" game board (orange squares).
 - o Align another board (or the "Finish" board if you want a short game) with one of the three non-orange sides of the "Start" game board.
 - Game boards can be added in any orientation that aligns an open square on the two boards, allowing you to make various shapes and increase the difficulty.
 - o When your board is complete, add the "Finish" board to the end. The purple squares are past the finish line.
 - o Shorter game boards and linear boards are easier and results in faster play. Longer game boards, boards that form shapes, and/or have lots of toxin squares are harder and are better for older players.
- Put one food token on each yellow square.
- Shuffle the deck of cards.
- Distribute three life tokens to each player.

Game Play:

The goal of the game is to get your bacteria across the finish line first.

1. Each player picks a bacterium and sets it down on an orange square on the “Start” board.
2. On each turn, each player roles the die and moves forward.
3. The player can then play either food token(s) or cards.
 - a. If the player has food token(s), they can turn the food tokens in to continue their forward movement by **2** squares. More than one food token can be played per turn. The player moves 2x the number of food tokens turned in.
 - b. If the player has a card that provides movement (such as “Activate Flagella”), they can play this card to continue their turn and finish the movement phase of their turn.
 - c. Players can also play cards that steal food tokens from other players and then, if they choose, play the food token to move two additional spaces.
4. Once the player’s game piece has finished moving, they complete the following actions depending on the square.
 - a. If you end your move on the same square as another player, you have to move back one square. The player then follows the actions for the square they finally settle on.
 - b. If the player lands on a **GREY** square, no square-dependent actions occur.
 - c. If the player lands on a **YELLOW** square with a food token, pick up the token. The player then decides if s/he wants to use turn in the token to move two squares or hold on to it for a later turn.
 - i. If the token has already been picked up, the player must immediately more two squares forward.
 - d. If the player lands on a **BLUE** square, s/he picks up a card. Follow the rules on the card for when to play and the action. Some card actions must be done immediately, while other cards can be saved for later in the game.
 - e. If the player lands on a **BLACK SKULL** square, s/he can either turn in a life token or play a card to protect the bacteria (biofilm card). If they don’t have a life token or card to play, they must return to the start.
 - f. If you finish your turn by landing on a **GREEN** square with an arrow, follow the arrow direction and slide your token to the square at the point of the arrow, skipping all the grey squares in between. Landing on any green square along the arrow moves the game piece to the

arrowhead. The square with the arrowhead does not give any movement, as the player is already at the end of the slide.

5. Once the player has finished their movement, they can then choose to play any cards that are not movement related (such as “Make a Biofilm”).
6. After cards have been played, the player’s turn is complete and they pass the dice to the next player.
7. Once all players have completed a turn, the cycle repeats until one player crosses the finish line.