

THE LIVES OF STAPH Actions List

Each time you roll the dice, follow the actions that correspond to the numbers you roll.

DICE ROLL	Action
1 and 1	An individual in your population just inherited a random mutation that resulted in an ADAPTATION. This mutation has been passed on to newly produced individuals in your population. Draw spikes around your bacterium’s capsule. These spikes protect your bacteria. <u>Move your population tracker up one level.</u>
2 and 1	Your host environment is stable with plenty of resources. Your current population increases. <u>Move your population tracker up a level.</u>
2 and 2	An individual in your population just inherited a random mutation that resulted in an ADAPTATION. This mutation has been passed on to newly produced individuals in your population. Trace the dotted line around your bacterium’s capsule. These hardened capsules will protect your bacterium. <u>Move your population tracker up one level.</u>
3 and 1	Your host environment is stable with just enough resources to support your current population size. Your population’s reproductive rate and death rate are equal. You inherited a random mutation that doesn’t affect you. <u>Remain at your current population level.</u>
3 and 2	Your host environment is stable with just enough resources to support your current population size. You inherited a random mutation that doesn’t affect you. Your population’s reproductive rate and death rate are equal. <u>Move your population tracker up one level.</u>
3 and 3	An individual in your population just inherited a random mutation that resulted in an ADAPTATION. This mutation has been passed on to newly produced individuals in your population. Draw diagonal lines over your bacterium’s body. These transport proteins take in antibiotics to speedily force them out of the bacterium. <u>Move your population tracker up one level.</u>
4 and 1	Your host is a moderately healthy individual who takes the full prescription of antibiotics. Your environment is unstable. Your current population decreases. <u>Move your population tracker down to the lowest level. (Move back only ONE space if you have spikes AND enzyme secretions.)</u>
4 and 2	Your host does not seek medical attention. Your environment is stable with plenty of resources. Your current population increases. <u>Move your population tracker up two levels. (If you have 3 or more adaptations, move your population tracker up to the highest level.)</u>
4 and 3	Your host environment is stable with just enough resources to support your current population size. Your population’s reproductive rate and death rate are equal. You inherited a random mutation that doesn’t affect you. <u>Remain at your current population level.</u>
4 and 4	An individual in your population just inherited a random mutation that resulted in an ADAPTATION. This mutation has been passed on to newly produced individuals in your population. Draw squiggly hairlike lines around your bacterium’s capsule. These cilia will help your bacteria absorb materials outside of it. <u>Move your population tracker up one level.</u>
5 and 1	Your host environment is stable with just enough resources to support your current population size. You inherited a random mutation that doesn’t affect you. Your population’s reproductive rate and death rate are equal. <u>Remain at your current population level.</u>

Appendix C: The Lives of Staph Actions List

5 and 2	Your host is a healthy individual who takes the full prescription of antibiotics. Your environment is unstable. Your current population decreases. <u>Move your population tracker to the lowest possible level regardless of current status.</u>
5 and 3	Your host environment is stable with just enough resources to support your current population size. Your population’s reproductive rate and death rate are equal. You inherited a random mutation that doesn’t affect you. <u>Remain at your current population level.</u>
5 and 4	Your host takes the full prescription of antibiotics. Your environment is unstable. Your current population decreases. <u>Move your population tracker down to the lowest level.</u>
5 and 5	An individual in your population just inherited a random mutation that resulted in an ADAPTATION. This mutation has been passed on to newly produced individuals in your population. <u>Draw little black dots</u> on the surface of your bacterium. These pores secrete enzymes that break down the capsules of foreign bacteria. <u>Move your population tracker up one level.</u>
6 and 1	Your host stops taking their prescription of antibiotics once they feel better instead of for the full 10 days. Your current population increases. <u>Move your population tracker up two levels.</u>
6 and 2	Your host environment is stable with just enough resources to support your current population size. You inherited a random mutation that doesn’t affect you. <u>Move your population tracker up one level.</u>
6 and 3	Your host takes the full prescription of antibiotics. Your environment is unstable. Your current population decreases. <u>Move your population tracker down to the lowest level. (Move back only ONE space if you have <u>hardened capsule</u> AND <u>oily film secretions.</u>)</u>
6 and 4	Your host environment is stable with just enough resources to support your current population size. Your population’s reproductive rate and death rate are equal. You inherited a random mutation that doesn’t affect you. <u>Remain at your current population level.</u>
6 and 5	Your host stops taking their prescription of antibiotics once they feel better instead of for the full 10 days. Your current population increases. <u>Move your population tracker up a level. (Move population tracker up TWO levels if you have diagonal lines.)</u>
6 and 6	An individual in your population just inherited a random mutation that resulted in an ADAPTATION. This mutation has been passed on to newly produced individuals in your population. <u>Lightly shade</u> around your bacterium’s capsule. This secretion of oily film resists water absorption and helps with antibiotic resistance. <u>Move your population tracker up one level.</u>

If you get sent to **POPULATION LEVEL ONE** two turns in a row, you must cross out your current bacterial population; your round is over until the next game.

Players who have a population that survives to the end of a round win that round. **The winner(s) of a game survives the most rounds.**