**Name:** _____ **Date:** _____

# Answer Key: Germs Be Gone: Disease Prevention for 11th Grade Juniors

High schoolers analyze pathogen transmission routes and community health protocols through recall-based scenarios involving public sanitation and personal immunity.

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**1. Which of the following is considered a 'vector' for transmitting diseases like Zika or Malaria, rather than a direct pathogen?**

**Answer:** B) Aedes aegypti mosquitoes

A vector is a living organism that carries and transmits an infectious agent to another living organism.

**2. Herd immunity occurs when a large portion of a community becomes immune to a disease, making the spread from person to person unlikely.**

**Answer:** A) True

When enough people are immune, the chain of infection is broken, protecting even those who cannot be vaccinated.

**3. To prevent the spread of Norovirus in shared living spaces, surfaces should be cleaned with _____.**

**Answer:** C) A chlorine bleach solution

Norovirus is highly resistant; specific disinfectants like bleach are required to effectively kill the virus on hard surfaces.

**4. Which of these is a preventive measure specifically designed to protect against 'fomite' transmission?**

**Answer:** C) Disinfecting a shared gym mat

Fomites are inanimate objects (like gym equipment or doorknobs) that can carry pathogens from one person to another.

**5. Why is the completion of a full course of prescribed antibiotics essential for preventing the rise of 'superbugs'?**

**Answer:** B) It ensures the strongest bacteria are eliminated

Stopping antibiotics early allows the most resistant bacteria to survive and multiply, leading to antibiotic resistance.

**6. Pathogens like the fungus that causes Athlete's Foot thrive best in dry, cold environments.**

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**Answer:** B) False

Fungi generally thrive in warm, moist, and dark environments, such as locker rooms or damp socks.

**7. The primary purpose of a _____ is to stimulate the body's immune memory without causing the actual disease.**

**Answer:** C) Vaccine

Vaccines introduce a weakened or inactive part of a pathogen to train the immune system to recognize it later.

**8. Junior-year students planning to live in dorms are often required to be vaccinated against Meningitis. How is this bacteria primarily spread?**

**Answer:** B) Through exchange of respiratory secretions

Meningococcal bacteria are spread through close or lengthy contact, such as coughing or sharing drinks, which is common in dorms.

**9. Standard surgical masks are primarily designed to prevent the wearer from spreading droplets to others rather than filtering out all inhaled viruses.**

**Answer:** A) True

Surgical masks act as a physical barrier to keep large droplets from leaving the wearer’s mouth and nose.

**10. Cross-contamination in a kitchen occurs when _____ are transferred from one food item to another via shared utensils.**

**Answer:** B) Pathogens

Pathogens like Salmonella can move from raw foods to ready-to-eat foods if cutting boards and knives are not cleaned correctly.