

PRACTICE WORKSHEET 2: GERMS AND DISEASES | CLASS 5 SCIENCE

Part A: Multiple Choice Questions

- Which of the following diseases is both communicable and preventable by vaccination?
 - Malaria
 - Typhoid
 - Measles
 - Asthma
 - What role do phagocytes play in the immune system's response to germs?
 - They produce antibodies.
 - They engulf and destroy harmful microbes.
 - They trigger allergic reactions.
 - They help in digestion.
 - Identify the primary method for managing congenital diseases.
 - Regular vaccination
 - Genetic counseling and prenatal care
 - Avoiding contact with sick people
 - Maintaining personal hygiene
 - What is the purpose of a vaccine?
 - To treat existing diseases
 - To prevent diseases by building immunity
 - To remove toxins from the body
 - To cure allergies
 - Allergies are triggered when the immune system:
 - Attacks harmful bacteria.
 - Reacts to harmless substances as threats.
 - Fails to recognize pathogens.
 - Completely shuts down.
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Part B: Fill in the Blanks

- _____ is an example of a vaccine-preventable viral disease.
 - _____ (bacteria/virus) are responsible for diseases like tuberculosis.
 - Washing hands with _____ helps eliminate most harmful microbes.
 - _____ diseases are inherited or caused by developmental issues before birth.
 - _____ is a common allergy symptom that affects the respiratory system.
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Part C: True or False

1. Germs can be spread by touching infected objects. (True/False)
 2. Vaccination completely eliminates the risk of contracting a disease. (True/False)
 3. Personal hygiene practices do not affect the spread of congenital diseases. (True/False)
 4. Congenital diseases can be caused by genetic mutations. (True/False)
 5. All harmful microbes can be destroyed by antibiotics. (True/False)
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Part D: Short Answer Questions

1. List and explain three ways germs are transmitted between individuals.
 2. How can a clean environment prevent the spread of diseases? Provide examples.
 3. Describe how harmful microbes like bacteria affect the human body.
 4. Illustrate the path of a germ entering the respiratory system using a labeled diagram.
 5. Why is it important to identify allergy triggers early?
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Part E: Long Answer Questions

1. **Differentiate between communicable and non-communicable diseases.** Include examples and prevention methods.
 2. **Explain the immune system's response to harmful microbes.** Use a diagram to show the process.
 3. **Discuss the importance of vaccination in preventing diseases.** Include historical examples and challenges in vaccination campaigns.
 4. **Describe congenital diseases in detail.** Explain their types, causes, and any preventive measures. Include examples.
 5. **Design a poster** that highlights the importance of personal hygiene in disease prevention. Include at least three visuals or diagrams.
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Answer Key with Detailed Explanations (Updated)

Part A: Multiple Choice Questions

1. c) Measles
 - Explanation: Measles is a vaccine-preventable communicable disease caused by a virus.
 2. b) They engulf and destroy harmful microbes.
 - Explanation: Phagocytes are immune cells that protect the body by ingesting harmful microbes.
 3. b) Genetic counseling and prenatal care
 - Explanation: Congenital diseases are best managed through prevention during pregnancy.
 4. b) To prevent diseases by building immunity
 5. b) Reacts to harmless substances as threats
 - Explanation: Allergies result from the immune system overreacting to allergens.
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Part B: Fill in the Blanks

1. Measles
 2. Bacteria
 3. Soap and clean water
 4. Congenital
 5. Sneezing
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Part C: True or False

1. True
 2. False (Vaccination reduces but does not completely eliminate risks.)
 3. True
 4. True
 5. False (Antibiotics are ineffective against viruses.)
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Part D: Short Answer Questions

1. **Transmission methods:**
 - Airborne (e.g., sneezing spreads flu germs).
 - Direct contact (e.g., touching infected wounds).
 - Waterborne (e.g., cholera from contaminated water).
2. **Clean environment:**
 - Prevents breeding of germs (e.g., covering garbage).
 - Reduces contamination (e.g., safe food storage).
3. **Effect of harmful microbes:**
 - Cause infections like tuberculosis by destroying tissue.
 - Release toxins, leading to symptoms like fever.

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4. **Diagram:**
 - Germ enters nose → Travels down windpipe → Reaches lungs → Causes respiratory symptoms.
 5. **Importance of identifying allergy triggers:**
 - Prevents severe reactions like anaphylaxis.
 - Helps manage allergies through avoidance and medication.
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Part E: Long Answer Questions

1. **Communicable vs. Non-communicable Diseases:**
 - Communicable: Spread person-to-person (e.g., influenza).
 - Non-communicable: Not infectious (e.g., diabetes).
 - Prevention: Hygiene for communicable, lifestyle changes for non-communicable.
2. **Immune Response Diagram:**
 - Germ enters → Phagocyte engulfs it → Antibodies produced → Germ destroyed.
3. **Vaccination Importance:**
 - Example: Smallpox eradication through vaccines.
 - Challenges: Misinformation and accessibility issues.
4. **Congenital Diseases:**
 - Types: Genetic (e.g., Down syndrome), environmental (e.g., fetal alcohol syndrome).
 - Causes: Mutations, lack of prenatal care.
 - Prevention: Regular check-ups, avoiding harmful substances during pregnancy.
5. **Poster Design:**
 - Highlight handwashing, clean drinking water, and covering sneezes.
 - Include visuals like germs being washed away and a happy, healthy family.