

Chapter 40 The Immune System and Disease

Section 40–1 Infectious Disease (pages 1031–1035)



TEKS FOCUS: 3F Contributions of scientists; 4C Role of viruses in causing disease; 4D Role of bacteria in causing disease; 11D Role of microorganisms in disrupting equilibrium

This section describes the causes of disease and explains how infectious diseases are transmitted.

Introduction (page 1031)

- Any change, other than an injury, that disrupts the normal functions of the body, is a(an) _____.
- What are three ways diseases can come about? _____

- Disease-causing agents are called _____.

The Germ Theory of Disease (pages 1031–1032)

- State the germ theory of disease. _____

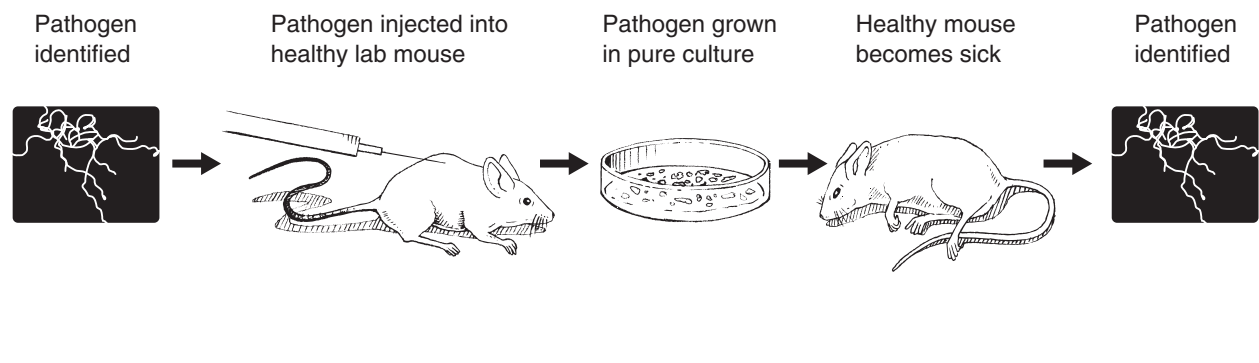
- Circle the letter of each scientist whose work led to the germ theory of disease.
 a. Koch b. Steere c. Pasteur d. Burgdorfer
- Is the following sentence true or false? Lyme disease is caused by bacteria.

- Circle the letter of the type of organism that spreads Lyme disease.
 a. mosquito b. deer tick c. deer fly d. horse fly

Koch’s Postulates (page 1032)

- What are scientists trying to identify when they use Koch’s postulates? _____

- Number the steps in the flowchart below so they show how to apply Koch’s postulates.



Agents of Disease (pages 1033–1034)

- 10. Is the following sentence true or false? Most of the bacteria and yeast that are found in the body are harmful and cause disease. _____
- 11. List two ways that bacteria can produce illness.
 - a. _____
 - b. _____

Match each type of pathogen with a disease caused by that type.

Type of Pathogen	Disease
_____ 12. Virus	a. Athlete’s foot
_____ 13. Bacterium	b. Anthrax
_____ 14. Protist	c. Tapeworm
_____ 15. Worm	d. Influenza
_____ 16. Fungus	e. Malaria

How Diseases Are Spread (page 1034)

- 17. List three ways that infectious diseases are spread.
 - a. _____
 - b. _____
 - c. _____
- 18. Animals that carry pathogens from person to person are called _____.
- 19. Is the following sentence true or false? Thorough hand washing does not help prevent the spread of many pathogens. _____

Fighting Infectious Diseases (page 1035)

- 20. Compounds that kill bacteria without harming the cells of humans or animals are called _____.
- 21. Circle the letter of each sentence that is true about antibiotics.
 - a. They work by interfering with the cellular processes of microorganisms.
 - b. Many of them are produced by living organisms.
 - c. They were first discovered in the 1940s.
 - d. They are effective against viruses.
- 22. How do antiviral drugs fight viral diseases? _____

