

Alexander Fleming Mini Quiz Pack

Table of Contents

How to Use This Book.....	4
Life of Alexander Fleming.....	5
True or False.....	6
Key Terms	7
Alexander Fleming's World.....	8
The Study of Bacteriology	9
Fleming's Contemporaries.....	10
Anatomy of Bacteria	12
Stopping Bacteria	15
Answer Key.....	17

Key Terms

Answer each of the questions below.

1. What is a culture?
2. What is bacteriology?
3. What is an antibiotic?
4. What is bacteria?
5. What is fungus?
6. What is the Nobel Prize for Physiology?
7. What is an enzyme?
8. What is an antiseptic?

Fleming's Contemporaries

During the time Alexander Fleming lived, there were many scientists and inventors making new discoveries and expanding scientific knowledge in ways we take for granted today. See if you can choose the correct scientist/inventor for each of the statements below by underlining his name.

1. This American inventor introduced the FM broadcasting system still used today.
Charles Proteus Steinmetz Edwin Howard Armstrong Edgar Douglas Adrian
2. This African American inventor invented versions of the traffic light and the gas mask.
Garrett Augustus Morgan Stephen Moulton Babcock Willis Haviland Carrier
3. This German scientist was known for working with high-pressure chemical reactions.
Francis William Aston Friedrich Bergius Frederick McKinley Jones
4. This Danish scientist discovered Vitamin K and the links between nutrition and blood clotting.
Niels Bohr Edward Bowen Henrik Dam
5. This American inventor was an early marketer of pre-packaged frozen foods.
Clarence Birdseye Edgar Douglas Adrian Robert Barany
6. This English scientist made important discoveries about nerve cells and how they work.
Stephen Moulton Babcock Niels Bohr Edgar Douglas Adrian
7. This African American inventor invented the first practical way to keep food cold during transport in trucks.
Frederick McKinley Jones Francis William Aston Garrett Augustus Morgan

Although Fleming and others working with him tried to purify penicillin and make it useful as a medicine, they were not able to do so. He said it would be very useful as a medicine if someone could isolate and purify it. Penicillin was one of the first antibiotics to be discovered. Finally, over a decade later, the scientists Howard Florey and Ernst Chain, leading a team of scientists, were able to make penicillin something that could be useful as a medicine.

Looking back at the picture of the bacteria, you can see it is contained by a cell wall. Penicillin works by preventing the enzymes in the bacteria from working to protect the cell wall and by actually breaking down the cell wall. This allows the penicillin to enter the bacteria. Penicillin does not harm human cells because they do not have cell walls in the same way as bacteria do. Just as with any medicine, there are people who are allergic to penicillin. Other antibiotics are now available that people can try who are allergic to penicillin.

Some bacteria are constructed differently, and penicillin does not work to destroy them. However, at the time it was first used, penicillin was a miracle drug for many people. With its production coinciding with World War II, penicillin was produced on a large scale because of the extreme need for it.

Below is a diagram of the bacterium. After studying the names of the parts of the bacterium in the diagram used earlier, see if you can fill in the names of the parts of the bacterium.

