

# PENICILLIN

Hi!!

- 1) Do you know what an antibiotic a virus or a bacteria is?
- 2) Let's ask the difference at home. Does your family know?
- 3) Let's read and find out what an antibiotic is**

## Alexander Fleming's Discovery of Penicillin

Penicillin heralded the dawn of the antibiotic age. Before its introduction there was no effective treatment for infections such as pneumonia, gonorrhea or rheumatic fever. Hospitals were full of people with blood poisoning contracted from a cut or a scratch, and doctors could do little for them but wait and hope.

Antibiotics are compounds produced by bacteria and fungi which are capable of killing, or inhibiting, competing microbial species. This phenomenon has long been known; it may explain why the ancient Egyptians had the practice of applying a poultice of moldy bread to infected wounds. But it was not until 1928 that penicillin, the first true antibiotic, was discovered by Alexander Fleming, Professor of Bacteriology at St. Mary's Hospital in London.

Returning from holiday on September 3, 1928, Fleming began to sort through petri dishes containing colonies of *Staphylococcus*, bacteria that cause boils, sore throats and abscesses. He noticed something unusual on one dish. It was dotted with colonies, save for one area where a blob of mold was growing. The zone immediately around the mold—later identified as a rare strain of *Penicillium notatum*—was clear, as if the mold had secreted something that inhibited bacterial growth.

Fleming found that his "mold juice" was capable of killing a wide range of harmful bacteria, such as streptococcus, meningococcus and the diphtheria bacillus. He then set his assistants, Stuart Craddock and Frederick Ridley, the difficult task of isolating pure penicillin from the mold juice. It proved to be very unstable, and they were only able to prepare solutions of crude material to work with. Fleming

published his findings in the British Journal of Experimental Pathology in June 1929, with only a passing reference to penicillin's potential therapeutic benefits

- 1- Why is penicillin so important?
- 2- What a bacteria is?
- 3- What did Fleming notice in one of his petri dishes?
- 4- What was his "mold juice" capable of?
- 5- What antibiotics are?
- 6- Was there any effective treatment for bacteria infections before 1928?

#### 4- Find out more verbs in the past simple tense

Recordá que los verbos en pasado salen de una lista de verbos y si el verbo no se encuentra en la lista se le agrega a ese verbo ED al final

WAS

NOTICED

#### 5- Complete the sentences

- a- Penicillin\_\_\_\_\_ (be) first discovered in 1928
  - b- The discovery of penicillin\_\_\_\_\_ (change) the course of medicine.
  - c- Fleming \_\_\_\_\_ (be) experimenting with the influenza virus in the Laboratory of the Inoculation Department at St. M
  - d- Fleming\_\_\_\_\_ (return) from a two-week vacation to find that a mold had developed on an accidentally contaminated staphylococcus culture plateary's Hospital in London.
  - e- An article\_\_\_\_\_ (publish) by Fleming in the British Journal of Experimental Pathology in 1929 reads, "The staphylococcus colonies\_\_\_\_\_ (become) transparent and were obviously undergoing lysis
- 7- Now describe what viruses are (few words) and why antibiotics don't eliminate viruses