

# УЧЁНЫЕ И ИХ ОТКРЫТИЯ ИЗМЕНИВШИЕ МИР.

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МИКРОСКОПА.

Ученицы 10 класса

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## *Anthony Van Leeuwenhoek (1632-1723). Inventor of the microscope.*

Anthony van Leeuwenhoek was born on October 24, 1632 in the city of Delft in Holland. Born into the family of a basket-maker Phillips Toniszon. Father and mother were respected burghers and were engaged in weaving baskets and, which was especially appreciated at that time, brewing. Levenhuk was raised by his mother, since his father died when he was 6 years old. She dreamed of making an official out of her son and therefore sent him to school. At the age of 15, Anthony decided to leave school and leave for Amsterdam, where he began to study trade in a shop, where he worked as an accountant and cashier. Returning to his homeland at the age of 21, Levenhuk got married and opened his own manufactory. And he began to lead the life of a respectable family burgher.



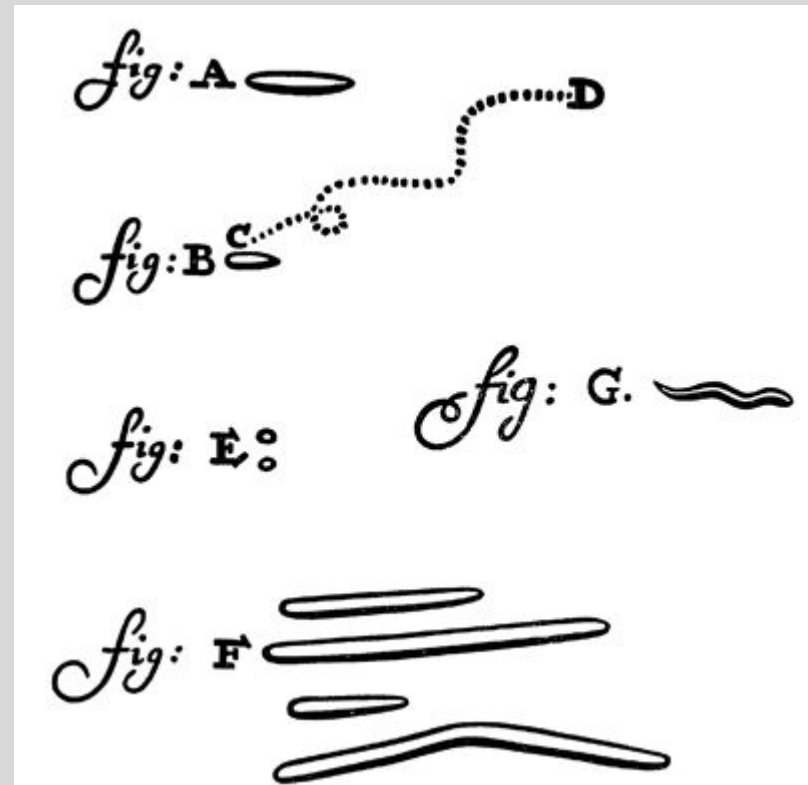
# Microscope and its creation.

- An unusual hobby made him famous. For many years Leeuwenhoek made his lenses in the form of lentils, called "microscopes", lenses were essentially magnifiers. They were tiny, sometimes smaller than a nail, but increased by 100 or even 300 times. Observing with these lenses required some skill and patience. There is no data to establish with certainty when Leeuwenhoek began his research. He was far from thinking of making a discovery: the microscope for him, an adult and respectable person, was just a favorite toy. But it was impossible to come off.
- ◦ The microscope was small and the magnifying glass was about the size of a pea. The glass was inserted into the frame, this magnifier required skill in handling, but it showed amazing things to the master - creator.



# First discoveries with a microscope.

- Leeuwenhoek was an inquisitive person with a wide range of interests. Trying to find out the reason for the pepper that irritates a person's tongue, he prepared an infusion of it. And two weeks later, when Levenhuk decided to look under a microscope at a drop of this infusion, his surprise knew no bounds! Animals lived in the preparation, colliding and scattering like ants in an anthill. In a letter to the Royal Society, Leeuwenhoek describes this phenomenon, and calls these objects animals.



# First discoveries with a microscope.

- ◦ Levenhuk abandoned everything and diligently began to look for his animalcules (“animalku-lus” - in Latin).
- ◦ To this message, Leeuwenhoek has attached pictures depicting "animals". You can recognize in them various forms of bacteria: bacilli, cocci, spirilla, filamentous bacteria. Heating the water in which these "animals" were, he found that they stop moving, as if they were dying, and the subsequent cooling of the water no longer came to life.

# First discoveries with a microscope.

- ◦ He was the first to see blood circulating in the smallest blood vessels. He discovered that blood is not a homogeneous liquid, as his contemporaries thought, but a living stream in which a great many of the smallest particles move. They are now called erythrocytes.
- ◦ Another discovery of Levenhuk is also very important: in the seminal fluid, he first saw spermatozoa - those small cells with tails that, penetrating into the egg, fertilize it, resulting in a new organism.

# Leeuwenhoek's contribution to science.

- Until the end of his life, Leeuwenhoek studied microorganisms. And when, after his death in 1723, his will was opened, they learned that the scientist bequeathed all his 26 microscopes to the Royal Academy of Sciences. But they still cannot solve one mystery: how, with such a weak magnification, Leeuwenhoek could observe such details that are not visible even with a magnification that is 2 times stronger!
- The scientist made a great contribution to anatomy and biology, which helped us people to make this world easier and more interesting.

# Information sources:

- 1. Сайт [www.levenhuk.ru](http://www.levenhuk.ru).
- 2. Википедия.
- 3. Сайт ppt – online.org.