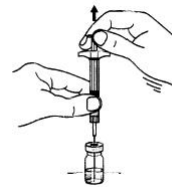
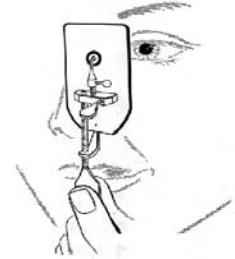


# History of Microorganisms

- Microorganisms not known until 1670's.
- Had to have a microscope first.
  - Invented in 1595 by Zacharias Janssen
    - Was considered a toy for the rich.
- Anton Van Leeuwenhoek 1670's
  - Improved the microscope so much he's considered the father of the microscope.
  - First looked at water under a microscope
  - Discovered small animals.
    - Called them "animalcules" (small animals)
      - Probably were bacteria
- Edward Jenner 1790's
  - Developed the first vaccine
  - Noticed that milk maids who had cowpox did not get smallpox
    - Injected cowpox in volunteers
      - They did not get smallpox
- Ignaz Semmelweis and Oliver Wendell Holmes 1840's
  - Women were dying after giving birth from Child Bed Fever
  - Semmelweis and Holmes suggested washing hands between patients
  - When hands were washed between patients, Child Bed Fever almost vanished
- Joseph Lister 1860's
  - Many patients got sick and died after operations
  - Lister proposed disinfecting operating room and instruments between operations
- Louis Pasteur 1860's
  - People believed life arose "spontaneously"
    - Mice came from grain bags
  - Pasteur proved that life had to come from existing life
  - Proposed that germs caused disease
  - Develop pasteurization
    - Rapidly heating something to kill germs
- Robert Koch 1880's
  - Germs cause disease

Figure 1.1  
LEEUVENHOEK'S MICROSCOPE



- Sir Alexander Fleming 1928
  - Discovered the "miracle drug" penicillin

