

Student Notes

1. In the ancient times, what did people believe that illness was caused by?

2. Who treated illness in the ancient times? _____

3. What was used as medicine during ancient times? What medicine was used during

this time to treat pain and is still used today to derive a more powerful pain-killer?

4. What contribution did the ancient Egyptians make to health care?

5. Who is believed to be the first physician?

6. During the time of the ancient Egyptians and Babylonians, what was the average lifespan?

7. What did the ancient Romans develop that helped to maintain a sanitary environment?

8. When did life expectancy increase?

9. When the bubonic plague struck, how much of Europe's population died as a result?

10. Who is known as the Father of Medicine? What contributions did he make?

11. What contributions did William Harvey make?

12. What contribution did Andreas Vesalius make? _____

13. What flawed theories of Claudius Galen held back medical progress for centuries? _____

14. What contribution did William Harvey make?

15. Who found a cure for yellow fever?

16. What did Joseph Lister discover and develop? _____

17. Match the medical advances to the person who discovered them.

John Hunter

A. Administered the first vaccination, developed smallpox vaccine.

Edward Jenner

B. Discovered the element radium

Florence Nightingale

C. Inserted a feeding tube into a patient's stomach.

Marie Curie

D. Known as the mother of nursing

18. What contribution did Sir Alexander Fleming make? _____

19. What contributions did Clara Barton make?

20. What positive contributions did the ancient Chinese make?

21. What medical advances were made in the 20th century as technology advanced?

Class Notes

Ancient Times

- humans had to protect themselves against predators
- superstitious
- illness/disease caused by supernatural spirits
- exorcise evil spirits
- herbs and plants used as medicine
 - digitalis from foxglove plant (today: pill, IV, injection; then: chewed leaves to strengthen and slow heart)
 - quinine from bark of cinchona tree (controls fever, muscle spasms, helps malaria)
 - belladonna and atropine from poisonous nightshade plant (relieves muscle spasms especially GI pain)
 - morphine from opium poppy (relieves severe pain)

Egyptians

- earliest to keep accurate health records
- superstitious
- called upon gods
- identified certain diseases
- pharaohs kept many specialists ("Dr.'s")
- priests were the doctors
- temples were places of worship, medical schools, and hospitals
- only the priests could read the medical knowledge from the god Thoth
- magicians were also healers
- believed demons caused disease
- prescriptions were written on papyrus
- embalming
- done by special priests (NOT the doctor priests)
- advanced the knowledge of anatomy
- strong antiseptics used to prevent decay
- gauze similar to today's surgical gauze
- mummies indicated some modern day diseases
 - arthritis
 - kidney stones
 - arteriosclerosis
- some medical practices still used today
- enemas
- circumcision (4000 B.C.): preceded marriage
- closing wounds
- setting fractures

Eye of Horus

- 5000 years ago
 - magic eye: amulet to guard against disease, suffering, and evil
 - history: Horus lost vision in attack by Seth; mother (Isis) called on Thoth for help; eye restored
 - evolved into modern day Rx sign

Jewish Medicine

- avoided medical practice
- concentrated on health rules concerning food, cleanliness, and quarantine
- **Moses:** pre-Hippocratic medical thought; studied hygiene and medicine at temple in Egypt; banned quackery (God was the only physician); Day of Rest was the greatest contribution to human welfare

Greek Medicine

- first to study causes of diseases
- research helped eliminate superstitions
- diseases caused by lack of sanitation
- **Hippocrates:** no dissection, only observations; careful notes of signs/symptoms of diseases; disease not caused by supernatural forces; Father of Medicine; wrote standard of ethics which is the basis for today's medical ethics
- **Aesculapius:** staff and serpent symbol of medicine; temples built in his honor became the first true clinics and hospitals

Roman Medicine

- learned from the Greeks and developed a sanitation system
- aqueducts and sewers
- public baths
- beginning of public health
- first to organize medical care
- army medicine
- room in doctor's house became first hospital
- public hygiene: flood control, solid construction of homes

Dark Ages (400 – 800 A.D.) and Middle Ages (800 – 1400 A.D.)

- medicine practiced only in convents and monasteries: custodial care, life and death in God's hands
- terrible **epidemics**
 - bubonic plague (Black Death)
 - smallpox
 - diphtheria
 - syphilis
 - measles
 - typhoid fever
 - tuberculosis
- Crusaders spread disease

- cities became common
- special officers to deal with sanitary problems
- realization of fact that disease is contagious: Quarantine Laws passed

Renaissance Medicine (1350 – 1650 A.D.)

- universities and medical schools for research
- dissection
- book publishing

16th and 17th Century

- **Leonardo da Vinci:** anatomy of the body
- **Anton van Leeuwenhoek** (1676): playing with lenses (invented microscope), Observed microorganisms
- **William Harvey:** circulation of blood
- **Gabriele Fallopius:** discovered fallopian tube
- **Bartolommeo Eustachius:** discovered tube from ear to throat
- Some quackery

18th Century

- **Edward Jenner:** 1796, smallpox vaccination
- **Joseph Priestly:** discovered oxygen
- **Benjamin Franklin:** invented bifocals, found that colds could be passed from person to person
- **Laennec:** invented the stethoscope

19th and 20th Century

- **Ignaz Semmelweis:** identified the cause of childbed fever (puerperal fever) which led to the importance of hand washing
- **Louis Pasteur** (1860 – 1895): discovered that microorganisms cause disease (germ theory of communicable disease)
- **Joseph Lister:** used carbolic acid on wounds to kill germs; first doctor to use an antiseptic during surgery
- **Ernest von Bergman:** developed asepsis
- **Robert Koch:** Father of Microbiology; specific germ causes specific disease; identified germ causing TB (in 1880's it killed 1 out of 7)
- **Wilhelm Roentgen:** discovered X-rays
- **Paul Ehrlich:** discovered effect of medicine on disease causing microorganisms i.e. Treatment for syphilis
- Anesthesia discovered (nitrous oxide, ether, chloroform)
- **Gerhard Domagk:** discovered sulfonamide drugs (1st medicine effective in killing bacteria)
- **Ivanoski:** discovered viruses i.e. poliomyelitis, rabies, measles, influenza, Chickenpox, German measles, herpes zoster, mumps
- **Alexander Fleming:** discovered penicillin
- **Jonas Salk:** discovered that a killed polio virus would cause immunity to polio

- **Alfred Sabin:** discovered that a live virus provided more effective immunity

1900 to 1945

- acute infectious diseases (diphtheria, TB, rheumatic fever)
- no antibiotics, DDT for mosquitoes, rest for TB, water sanitation to help stop spread of typhoid fever, diphtheria vaccination
- hospitals were places to die
- most doctors were general practitioners

1945 to 1975

- immunization common, antibiotic cures, safer surgery, transplants, increased lifespan, chronic degenerative diseases, new health hazards (obesity, neuroses, lung cancer, hypertension), disintegrating families, greatly increasing medical costs

1975 to present

- artificial parts, bioengineering, cloning, bioethical issues, AIDS, drug resistant organisms, laser surgeries, laparoscopic surgeries, managed health care, etc.

History Questions

1. Who invented the microscope? What was he doing to discover the microscope?
2. Who developed asepsis?
3. What contributions did Laennec develop?
4. Explain what the Eye of Horus was.
5. In what ways was public health encouraged by the Greeks and Romans?
6. In ancient times, on what were medical records and prescriptions written?
7. Name some examples of ancient treatments still in use today.
8. What diseases of ancient times are still treated today?
9. Even as late as 1500 A.D., what was thought to be the main cause of dental disease?
10. When and where was the first medical school that included dental surgery organized in America?

Medical History Vocabulary

1. **ancient:** of or belonging to times long past
2. **historical:** of or having to do with a record of past events
3. **sequential:** in order
4. **treatment:** act or process of providing therapy
5. **discovery:** act of finding
6. **contribution:** donation; something given
7. **allopathic:** having to do with method of treating a disease by using different remedies to produce effects different from those caused by the disease
8. **osteopathic:** literally, manipulating muscles and bones
9. **era:** period of time
10. **predators:** organisms or beings that destroy
11. **superstitious:** trusting in magic or chance
12. **accurate:** exact, correct, precise
13. **observation:** act of watching
14. **monasteries:** homes for men following religious standards
15. **custodial:** take care of
16. **dissection:** dividing or taking apart
17. **quackery:** untrained person who practices false medicine
18. **stethoscope:** instrument used to hear sound in the body (i.e. heart, bowel sounds)
19. **microorganisms:** organisms so small that they can only be seen through a microscope
20. **antiseptic:** against infection
21. **asepsis:** sterile condition; free from all germs
22. **anesthesia:** loss of feeling or sensation
23. **recipient:** one that receives
24. **noninvasive:** to perform tests that do not penetrate the body
25. **geriatric:** pertaining to old age

Healthcare Heroes Project

- | | |
|---------------------------|--------------------------|
| 1. Hippocrates | 17. Ernest von Bergman |
| 2. Aristotle | 18. Robert Koch |
| 3. Galen | 19. Wilhelm Roentgen |
| 4. Vesalius | 20. Paul Ehrlich |
| 5. Leonardo da Vinci | 21. Ivanoski |
| 6. Anton von Leeuwenhoek | 22. Alexander Fleming |
| 7. William Harvey | 23. Jonas Salk |
| 8. Gabriele Fallopius | 24. Alfred Sabin |
| 9. Bartolommeo Eustachius | 25. Walter Reed |
| 10. Edward Jenner | 26. Morton, D.D.S. |
| 11. Joseph Priestly | 27. Best and Banting |
| 12. Benjamin Franklin | 28. Clara Barton |
| 13. Laennec | 29. Florence Nightingale |
| 14. Ignaz Semmelweiss | 30. Robert Hooke |
| 15. Louis Pasteur | 31. Elie Metchnikoff |
| 16. Joseph Lister | |

In health care, personal traits like character, values, morals, ethics, integrity, and trustworthiness are vital. The student will identify character traits through investigating a health care professional.

Literature contains many stories of people who have been healthcare providers throughout history

- A. Learning about the lives and experiences of these people can be informational and inspirational
- B. Have a hero or heroine provides role models

Directions:

Each student will draw a number from a cup that correlates with one of the above healthcare heroes.

The student will then research their person and create an informational page (poster) on their historian. You can use the provided template or create your own poster.

Guidelines:

The poster should provide healthcare related historical contributions, time lines, nicknames, mistakes, or any other noted information that contributed to healthcare. There should be a picture of your historian, information about where they are from, year/century they contributed, and 5 other facts about them. The facts should have drawings (pictures that you color are fine) and text. This poster should summarize the person and their contributions. The poster will be graded on decoration and neatness. Make sure that your writing is legible and you have verified your facts.

PROJECT DUE DATE: September 28th 1545. May be turned in prior to this date.

Rubric

Student: _____ Date: _____

Scoring criteria		
Size	Poster must be a minimum 8x11.	5
Labeling and Lettering	Heroes name is written with correct capitalization and spelling. Hand written letters are clear and readable 3 feet away. MUST BE IN PRINT AND FREE OF SPELLING ERRORS.	15
Tables	Completes and labels all 8 tables.	20
Illustration	Hand drawn, with plenty of color, one illustration per table. There are 8 tables, there should be minimum 6 illustrations. With a max of 3 computer print outs, that are black and white and then colored in with markers.	35
Presentation	Must be arranged in organized manner and colorful.	20
Research	Facts must be presented and information must be verifiable in common text books.	10

HEALTHCARE HEREO

GREATLY AFFECTED

THE _____
CENTURY

MOST NOTABLE
DEVELOPMENT



THEY
ARE
FROM



KNOWN FOR

LEGACY