

Tour plan for St. Paul's Episcopal School, Grades 11 and 12

January 25, 9:30—11:00 am

Tour theme: human anatomy and physiology

AL Science COS standards: Human Anatomy & Physiology 4a-b, 6, 7, 9, 10, 12a

Highlighted artifacts

Trephine

Adult skull w/ autopsy cut

Partial adult calotte (skull cap)

Spine

Infant skulls

Skeletons X (female) and Y (male)

Anatomical models illustrating lymphatic and autonomic nervous systems

Iron lung

Stethoscopes

Bloodletting instruments (lancet, scarificator, bleeding bowl, cupping glasses, cupping pump)

Blood pressure monitor

Heart-lung machine

Early electrocardiograph machine

Additional resources

Lung model (bottle and straw)

Human skeleton x-ray slides and labels

Tour outline

1. Traditional medicine—trephination as earliest known surgical technique
2. Colonial medicine—humoral theory and bloodletting
3. Cardiovascular health care, part 1
 - a. Invention of stethoscope
 - b. Discovery of blood circulation & blood pressure
 - c. Invention of mercury-based sphygmomanometer (blood pressure monitor)
4. Anatomical study and medical education
 - a. using models
 - b. using cadavers, bones, and specimens
 - c. bioanthropology and constructing profiles
5. Respiratory system and polio
 - a. Demonstration of normal lung function using model
 - b. Polio and iron lung
6. Cardiovascular health care, part 2
 - a. Demonstration of heart-lung machine
 - b. Development of electrocardiography

Activity (optional)

1. Complete x-ray image of human skeleton is set up on table.
2. Students must match 19 bone labels to their correct location on skeleton. They range from easy (teeth, skull) to hard (tibia, ulna, scapula). When the bone is correctly identified, have student read trivia about it.