In Depth: Autopsy

Details & Academic Standard Connections

Description

Watch a tape of an actual human autopsy with LIVE narration by a forensic pathologist. The autopsy will be shown from the y-incision to the removal of the brain. Students will be able to ask questions throughout the program. This program lasts 90 minutes.

Teachers will be sent a kit of materials prior to the program. In the kit, teachers will find materials to conduct both pre and post-visit activities along with booklets for the students to use during the program. Students are encouraged to take diligent notes throughout the program. These notes along with toxicology reports, will help the students solve for the cause of death during a post-visit activity.

Relevant Grade Levels

Grades 10-12

GOLD MEDAL WINNER
American Association of Museums
MUSE Award for Two-Way
Interactive Programming

Pricing

Audience participating by remote videoconference connection:

- $280 per connection; extra kits $100 each.

Audiences participating from COSI's Galaxy Theater:

- Groups (15 or more) - $13 per person for *Autopsy* only (does not include COSI exhibitions).
- Individuals - $15 per person for *Autopsy* only (does not include COSI exhibitions).

Companion Kit

A companion kit with supplies for 30 students is included in the price of your program. The kit includes pre- and post-visit activities along with materials needed for the program.

Pre-visit activities include photos of an autopsy to prepare students for what they will see, researching assigned pathologies of various organs, researching and planning the steps of an autopsy for a specific patient, and turning that plan over to COSI's forensic pathologist prior to the start of the program. Students receive a booklet to be used during the videoconference that outlines the procedure and encourages them to take good notes and analyze organ weights and measurements.

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Post-visit activities include a toxicology activity, toxicology reports to analyze, histology slides, a final autopsy report and a forensic activity to analyze stab and skin wounds. With the exception of paper and pencil, all the supplies needed for the above activities are provided in the kit. Additional kits of materials (supplying 30 students) may be purchased for $95 each. Kits for groups coming to COSI will be sent according to the number of students in your group.

Reservation Information

In Depth: Autopsy reservations can be made online at: https://education.cosi.org/eers/

The In-Depth Autopsy schedule can be seen at: http://www.cosi.org/educators/videoconferencing/in-depth/

To reserve a program, log in to the reservation system, select the month you would like the program, click on the date you are interested in, and look for green dots under your selected time. If you see green dots, click on the "register for show" button. Red dots indicate sold-out shows; please look for an alternate date, or continue the reservation process to be placed on a waiting list. Seats at COSI may still be available for this program after remote connections are sold out. Minimum payment will be required for groups coming to COSI.

Technical Information

COSI can accept ISDN or IP connections. For good video quality, we strongly recommend a connection speed of 384 kbps or higher. In Depth: Autopsy is a multi-point program that connects up to five or six schools at once. Student questions are asked in a round-robin fashion and are facilitated by COSI.

Alignment with Ohio Academic Content Standards for Science

Life Sciences

- 10.27 (Grade 10): Describe advances in life sciences that have important long-lasting effects on science and society (e.g., biological evolution, germ theory, biotechnology, and discovering germs).
- 11.1 (Grade 11): Describe how the maintenance of a relatively stable internal environment is required for the continuation of life, and explain how stability is challenged by changing physical, chemical and environmental conditions as well as the presence of pathogens.

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Science and Technology

- 9.1 (Grade 9): Describe means of comparing the benefits with the risks of technology and how science can inform public policy.
- 12.1 (Grade 12): Explain how science often advances with the introduction of new technologies and how solving technological problems often results in new scientific knowledge.
- 12.2 (Grade 12): Describe how new technologies often extend the current levels of scientific understanding and introduce new areas of research.

Scientific Inquiry

- 9.3 (Grade 9): Construct, interpret and apply physical and conceptual models that represent or explain systems, objects, events or concepts.
- 10.4 (Grade 10): Draw conclusions from inquiries based on scientific knowledge and principles, the use of logic and evidence (data) from investigations.
- 11.4 (Grade 11): Explain why the methods of an investigation are based on the questions being asked.
- 11.5 (Grade 11): Summarize data and construct a reasonable argument based on those data and other known information.
- 12.1 (Grade 12): Formulate testable hypotheses. Develop and explain the appropriate procedures, controls and variables (dependent and independent) in scientific experimentation.

Scientific Ways of Knowing

- 10.3 (Grade 10): Recognize that science is a systematic method of continuing investigation, based on observation, hypothesis testing, measurement, experimentation, and theory building, which leads to more adequate explanations of natural phenomena.
- 10.4 (Grade 10): Recognize that ethical considerations limit what scientists can do.
- 10.5 (Grade 10): Recognize that research involving voluntary human subjects should be conducted only with the informed consent of the subjects and follow rigid guidelines and/or laws.
- 10.7 (Grade 10): Investigate how the knowledge, skills and interests learned in science classes apply to the careers students plan to pursue.
- 11.1 (Grade 11): Analyze a set of data to derive a hypothesis and apply that hypothesis to a similar phenomenon (e.g., biome data).
- 11.11 (Grade 11): Research the role of science and technology in careers that students plan to pursue.
- 12.1 (Grade 12): Give examples that show how science is a social endeavor in which scientists share their knowledge with the expectation that it will be challenged continuously by the scientific community and others.

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National Science Education Standards for Grades 9 - 12*

* From *National Science Education Standards* by the National Committee on Science Education Standards and Assessment, National Research Council, National Academies Press, 1996.

Content Standard A:
- Abilities necessary to do scientific inquiry
- Understandings about scientific inquiry

Content Standard C:
- Understandings of the cell
- Understandings of molecular basis of heredity

Content Standard E:
- Abilities of technological design
- Understandings about science and technology

Content Standard G:
- Understandings of science as a human endeavor
- Understandings of the nature of scientific knowledge
- Understandings of historical perspectives