

07-Forensic Anthropology

Content Area: **Science**
Course(s):
Time Period: **Full Year**
Length: **3 weeks**
Status: **Published**

General Overview, Course Description or Course Philosophy

In this course, you will apply the science you've learned throughout your high school years in a variety of ways to analyze and solve cases. Various aspects of chemistry, physics, biology and physiology, to name a few, will be utilized with this course. Many of the activities will be lab-base, as this course is an applied science course. This course should prove to be intriguing, through provoking and have a "gross-factor" that should keep you entertained!

OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

Students will understand that: in some cases, bodies are not found for an extended time. Often the body will have decomposed and bones may be found apart from one another. These bones, though, even by themselves can tell a forensic anthropologist a good deal of information about the victim. Students will make comparisons between different bone sizes and shapes and characteristics like age, race, height, and weight.

CONTENT AREA STANDARDS

G-MG.A.1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).

S-ID.B.6 Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.

LA.RST.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
LA.RST.11-12.8	Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.
LA.RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.
SCI.HS-LS4-1	Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)

TECH.9.4.12.CT.1	Identify problem-solving strategies used in the development of an innovative product or practice (e.g., 1.1.12acc.C1b, 2.2.12.PF.3).
TECH.9.4.12.CT.2	Explain the potential benefits of collaborating to enhance critical thinking and problem solving (e.g., 1.3E.12profCR3.a).
TECH.9.4.12.CT.3	Enlist input from a variety of stakeholders (e.g., community members, experts in the field) to design a service learning activity that addresses a local or global issue (e.g., environmental justice).
TECH.9.4.12.DC.3	Evaluate the social and economic implications of privacy in the context of safety, law, or ethics (e.g., 6.3.12.HistoryCA.1).

STUDENT LEARNING TARGETS

Refer to the 'Declarative Knowledge' and 'Procedural Knowledge' sections.

Declarative Knowledge

Students will understand that:

- understand the strengths and limitations of forensic anthropology
- describe the growth of bones and how they relate to age determination of bones
- describe how the skull can be used to determine the race of an individual
- describe how the pelvis can be used to determine sex of an individual

Procedural Knowledge

Students will be able to:

- label the major bones of the skeletal system
- determine relationships between sized of bones and height, weight, etc.

EVIDENCE OF LEARNING

Refer to the 'Formative Assessments' and 'Summative Assessments' sections.

Formative Assessments

observation exercises

do know

exit/entrance tickets

quizzes

homework

Summative Assessments

- Benchmarks – departmental benchmark given at the end of MP1, MP2, and MP3 based on lab practices
- Alternative Assessments
 - Lab inquiries and investigations
 - Lab Practicals
 - Exploratory activities based on phenomenon
 - Gallery walks of student work
 - Creative Extension Projects
 - Build a model of a proposed solution
 - Let students design their own flashcards to test each other
 - Keynote presentations made by students on a topic
 - Portfolio

RESOURCES (Instructional, Supplemental, Intervention Materials)

American Academy of Forensic Science (aafs.org/students/choosing-a-career/)

American Forensic Association (americanforensics.org/what.html)

NY Times Forensics Articles (nytimes.com/topic/subject/forensic-science)

Forensic Files (youtube.com/user/ForensicFilesChannel)

Forensic Science Experiments

(thehomescientist.com/forensics/Illustrated_Guide_to_Home_Forensic_Science_Experiments.pdf)

INTERDISCIPLINARY CONNECTIONS

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.