

*Forensic Science*

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***A Date With The Past!***

**A Lesson on Forensic Archaeology**

*School Year 2021-2022*

# **Introduction**

✓ Determining the time when a crime occurred is vital to a criminal investigation.

✓ **Archaeologists** are often used to assist crime scene investigators when a crime occurred in the past.



## Detectives of the Past

✓ Field **Archaeologists** are often called

“detectives of the past.”

- ✓ They use their skills to help unearth evidence, remove it from the ground, and interpret the clues they find.



- ✓ A Field **Archaeologist** uses his or her skills to reconstruct the past.

# Detectives of the Past

## Continued...

- ✓ **Archaeologists** can work with **Chemists** to determine such things as the sex, and age of skeletal remains, disease the victim had suffered from the past, age of the victims death, and the age of the skeletal remains.
- ✓ This information can then be compared to missing persons records from long ago to help determine the identity of human remains.



# Dating Skeletons



- ✓ Scientists try to determine the age of the human skeletal remains using several methods.
- ✓ **Carbon-14 method**-used to date the age of skeletal remains.
- Carbon is an element found in all living things. ✓ **Carbon-14** is an isotope of carbon.
- Isotopes are atoms with the same number of protons, but different number of neutrons.



# Carbon-14

- ✓ Carbon-14 dating can be used to find the ages of once-living things because all organisms absorb Carbon-14 when they are alive.
- ✓ Once the organism dies, its body begins to lose Carbon-14 at a fixed rate.
- ✓ Scientists can measure the amount of Carbon-14 remaining in the skeleton to determine the date the person died.



# Forensics and Archaeology



✓ Forensic Scientists and **Archaeologists** often form teams to help identify missing persons.

- ✓ They work with complete skeletal remains or small quantities of remains such as bone and tooth fragments.
- ✓ **Archaeologists** have been called in to help solve the mystery of individual murdered in war crimes of the past.

# [ ✓ Questions and ] Comments

