



High School Science Virtual Learning

Forensic Science
Facial Reconstruction

April 29, 2020



High School Forensic Science

Lesson: April 29, 2020

Objective/Learning Target:

Students will be able to assess facial reconstructions and how they are used to identify remains.

On your own sheet of paper answer the following:

1. What is the art form in which you use clay on skulls to figure out the original facial features of the deceased?
2. What are some other ways to reconstruct facial features from a skull?





1. Facial reconstruction

2. Sketching, 3D mapping, and digital rendering



Lesson Activity:

Directions: You will be watching these two short videos over reconstructions and how they are used to identify victims. While watching, you will need to answer following practice questions, on the same sheet from earlier:

Link(s): [How it's made Facial reconstruction](#)
[Skull Reconstruction](#)



Practice

You will use the How it's made video from the activity on slide 5 to answer the following questions.



Practice Questions

1. What is the first thing a Forensic Facial Reconstructionist should do?
2. Why are the markers placed on the different positions on the skull?
3. Why do the best reconstructions not show any facial expressions?
4. What are the three layers of clay that are applied to a skull?
5. What is one technique to apply hair, eyebrows, and facial hair?



Answer Key

Once you have completed the practice questions check with the work.

1. Duplicate the skull.
2. They represent the various thickness of facial skin.
3. Facial expressions are unique and are impossible to infer from a skull.
4. Muscles, glands, and skin.
5. Digitally applying on photoshop.



More Practice

You will use the skull reconstruction video from the activity on slide 5 to answer the following questions.



More Practice Questions

1. In 3D reconstructions how often are positive identifications made?
2. What are some things the medical examiner figures out and tells the forensic artist?
3. What was different in the first step of prep between the last video and this NCIS video?
4. Why are notes from the crime scene so important?
5. Why are some people unwilling to reach out on recognizing a reconstruction?



Answer Key

Once you have completed the practice questions check with the work.

1. Over 60% of the time
2. The victim's gender, age, size, weight, height, etc.
3. The NCIS person does not replicate the skull
4. They can tell small details at times, like the facial hair for this victim
5. They feel as if there is a detail different or missing from the victim, due to it not being available on the skull's record.



Additional Resources

[FBI review on positive identification using Reconstruction](#)

[Historical facial reconstructions](#)

[Future techniques of facial reconstruction](#)

[Solving Canadian Cold Cases](#)