

Name _____ Date _____

BONE BONANZA

A Lab on Male and Female Skeletons

Objective

You will separate and reassemble bones of a male skeleton and a female skeleton.

Background Information

Two months ago, police were called to investigate the destruction of a section of Pine City's cemetery. Several gravestones were overturned, graves dug up, and coffins emptied. Based on an eyewitness report, police were able to capture the two perpetrators shortly after the incident.

Following their trial, the judge sentenced these two vandals to a term in prison. He also required them to pay for damage to the cemetery and the costs of reburying each unearthed body.

Two of the victims of this senseless desecration were Sam's grandparents. Sam had never known his grandparents, but he had great respect for them. That is why he had volunteered to be the family member who took care of their cemetery plots. Because his grandparents had never been embalmed, all that remained of their bodies were their skeletons. When the cemetery vandals emptied their coffins, their bones were dumped together and were mixed. Therefore, reburying Grandmother and Grandfather is a difficult task. To sort things out, Sam hires the archaeology professor from the community college. The bill for the archaeologist's services will be sent to the jailed vandals.

Materials

Skeletal Handout

Scissors

Ruler

White paper

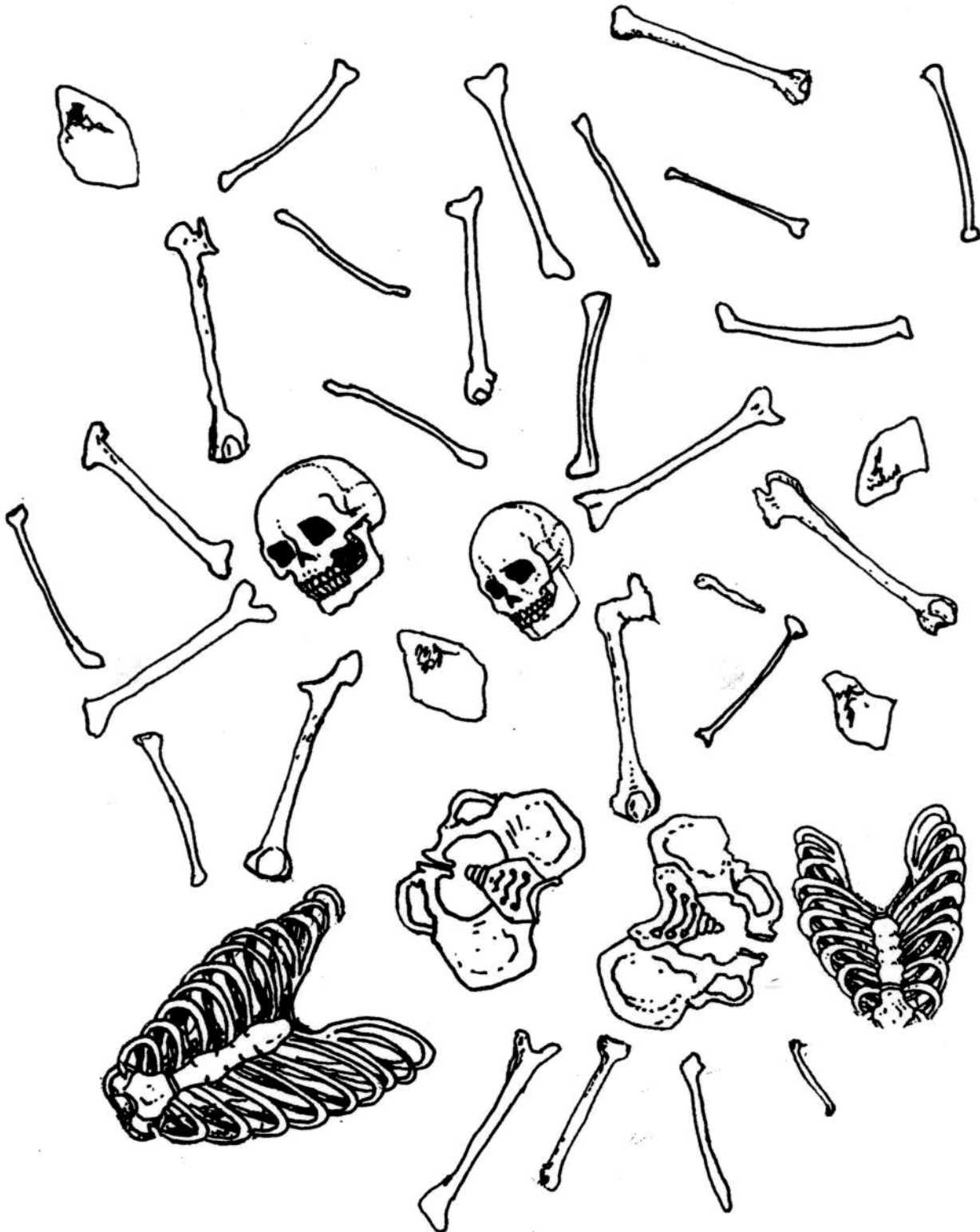
Glue

Copies of Figures 28A and 28B from "Making No Bones About It"

Procedure

1. Cut out all of the bones in the Skeletal Handout.
2. Determine which bones belong to Grandmother, and which belong to Grandfather.
3. Reassemble these bones into complete skeletons, using Figures 28A and 28B from "Making No Bones About It" as a guide.

Skeletal Handout



Postlab Questions

1. What is the width of Grandmother's pelvis, measuring from the pelvic brim? How does her pelvis differ from Grandfather's?

2. Examine the arm bones of the two skeletons. Was Grandmother right- or left-handed? How about Grandfather?

3. Which skeleton has more bones: a male skeleton or a female skeleton?

4. How many ribs does Grandfather's skeleton have? Grandmother's?

5. How would you expect the sternal ends of Grandmother's and Grandfather's ribs to look? Why?

6. How can an archaeologist assist a forensic scientist in a criminal investigation?
