

## Hominin and Human Anthropology

**Goal: Introduction to the similarities and differences of skeletons over many thousands of years; learning how to use data to draw conclusion(s); making connections across time**

There are **THREE** stations, followed by a capstone (final) event. You and your group will spend 30 minutes at each station, and the capstone event. The order of the stations doesn't matter, but stay with your group!

### Station I (two parts): Human Pelves and Assorted Skulls

#### Part One: Human Pelves

##### Directions:

You have in front of you two different human pelvises. One is male and one is female.

Can you tell which is the male pelvis and which is the female pelvis? \_\_\_\_\_

What is your claim? \_\_\_\_\_

*Ex: The pelvis on the right is male. (It's not, necessarily; just as an example)*

What data are you using to support your claim? \_\_\_\_\_

\_\_\_\_\_

Hint: *What made you think that the pelvis on the right is male?*

#### Part Two: Male, Female, Juvenile, and "Odd" skulls

**Directions:** You have four skulls in front of you; one is male, one is female, one is juvenile (not an adult), one is not so easily characterized. Which is which?

Male \_\_\_\_\_ I think this is true because: \_\_\_\_\_

\_\_\_\_\_

Female \_\_\_\_\_ I think this is true because: \_\_\_\_\_

\_\_\_\_\_

Juvenile \_\_\_\_\_ I think this is true because: \_\_\_\_\_

\_\_\_\_\_

Odd \_\_\_\_\_ I think this is true because: \_\_\_\_\_

\_\_\_\_\_

**Station II (two parts): Hominin Skulls**

**Directions:**

Place the skulls (there may not be eight) in order from oldest (were alive a long, long time ago) to youngest (alive a long time ago).

**Youngest**

Skull \_\_\_\_\_

Skull \_\_\_\_\_

Skull \_\_\_\_\_

Skull \_\_\_\_\_

Skull \_\_\_\_\_

Skull \_\_\_\_\_

Skull \_\_\_\_\_

Skull \_\_\_\_\_

**Oldest**

**Station II, Part Two: Using data to “date” the Skulls**

**Notes:**

Now you have a *different* set of skulls (there may not be eight). Place these skulls in order from oldest (were alive a long, long time ago) to youngest (alive a long time ago).

**Youngest**

What data did you use to determine its age?

Skull _____	_____
Skull _____	_____
Skull _____	_____
Skull _____	_____
Skull _____	_____
Skull _____	_____
Skull _____	_____
Skull _____	_____

**Oldest**

**Station III: Sorting animal skulls according to relatedness (how closely related they are, or are not)**

Relatedness is a big word that can mean a lot of different things. Right now we're using it to help you think about how closely organisms are related, or how distantly related they might be.

*Think about it like this:* You and your biological parents are verrrrrrrry closely related (you share the same genes), but you and your teacher are (probably) distantly related (you have some genes in common, and it would take going back about 20 generations to find a relative that you have in common, but you could do it).

Like that, you and your teacher are closely related to other animals in the Animal Kingdom, but distantly related to others. Going beyond that (hold on to your hats), we humans have a lot in common (like DNA) with organisms that aren't animals. For now though, let's stick to animals.

**Directions:**

You have a big set of animal skulls in front of you. We want your group to organize the skulls (carefully) in a way that shows other people how closely (or distantly) related they are.

**Work as a group to think first about how you want to approach this problem.**

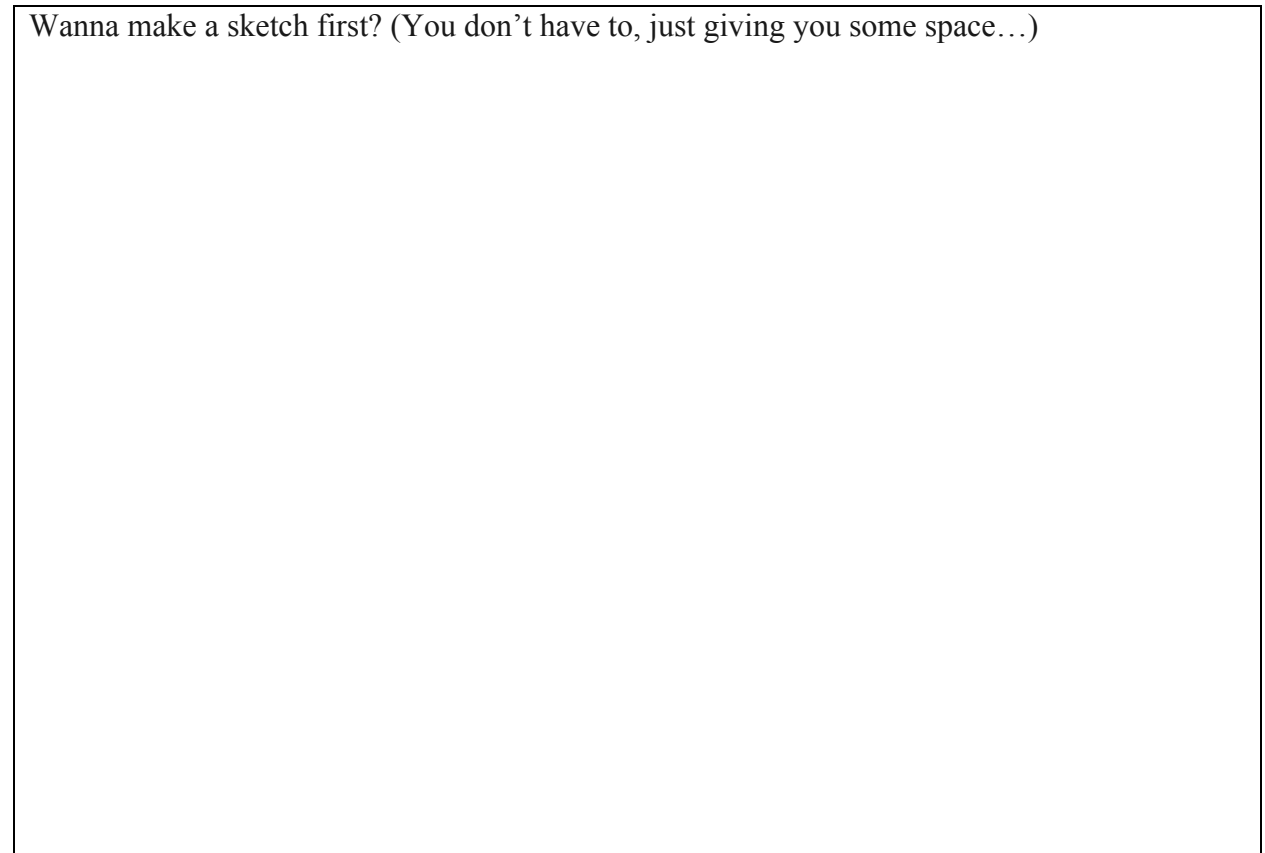
What's your first question? \_\_\_\_\_

And then what? \_\_\_\_\_

What *characteristics* are you paying attention to (size, teeth, type of skull, etc.)? \_\_\_\_\_

\_\_\_\_\_

Wanna make a sketch first? (You don't have to, just giving you some space...)

A large empty rectangular box with a thin black border, intended for a sketch. The text "Wanna make a sketch first? (You don't have to, just giving you some space...)" is written at the top left of the box.

When your group is done, take a picture or make a drawing of your final product.

If you have time, try it again! Is it easier or harder the second time around?

## Capstone: Putting it all together!

**Directions:** You have images of a standing human and a standing Neanderthal. Working with your group:

What can you say about them, individually?

Who is male/female?

Other observations/conclusions/thoughts/questions?

★ What traits or characteristics do you see that might have helped this organism to survive and reproduce and pass on their genes?

★ And finally... what similarities do you see between these organisms and you?