Wes Gordon and the Boy Paleontologists

Wesley (Wes) Gordon, an avid collector, was a science teacher in the San Lorenzo School District. Wes filled his classroom with fossil specimens discovered in the Irvington township (now City of Fremont.) Wes would travel the area in search of specimens. He became an amateur geologist with an astute eye for collecting. He started taking a group of students with him, including his three young sons. This group of students would later become the Hayward Boy Paleontologists, who would devote over ten years of their young lives unearthing fossils in the East Bay area. The significance of this fauna was slowly unraveled, allowing scientists to sort out the timing of past environments in California. The collection site became the type locality for the Irvingtonian North American Stage, an internationally known slice of geologic time, ranging from 0.3-to-1.8 million years ago.

WESLEY GORDON FOSSIL HALL
AND
NATURE HALL
at the Math Science Nucleus
GENERAL GUIDED TOUR

painting by Laura Cunningham

NAME _____

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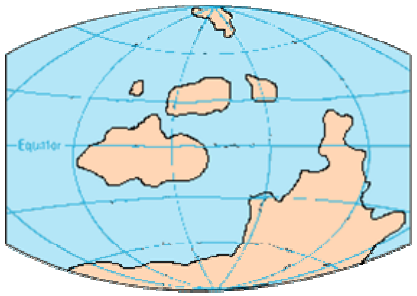
YOU MAY TOUCH ITEMS ON TABLES BUT DO NOT PICK UP

ENVIRONMENTS THROUGH TIME

FOLLOW THE RED DOTS

The surface of the Earth has changed over time. Fossils help us determine the age of rocks they are found in. Some habitats are "friendly" to different organisms. Look at the organisms and determine where they lived (land or water).



Silurian, 430 million years ago

PALEOZOIC ERA

1. Trilobites were very abundant during this time. Look at the map and determine what type of environment they may have lived in?

_____

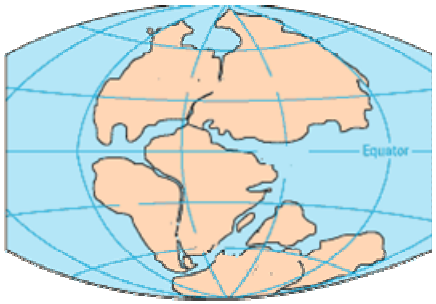
Which modern day animal does it look like? _____

MESOZOIC ERA

2. Look at the dinosaur fossils. These large animals required lots of food to live. Look at the land masses during the Mesozoic. Why was the Mesozoic a good time to live for the dinosaurs?

_____

_____



Triassic, 225 million years ago

NATURE HALL

Look at the animals identified on yellow paper. Read the information on each animal. Write the name of organisms in the appropriate area below. *Primary consumers can eat plants or small critters. Secondary consumers eat primary consumers and are usually omnivores or carnivores.*

List the primary consumers.

1.

2.

3.

4.

5.

List the secondary consumers.

6.

7.

8.

9.

10.

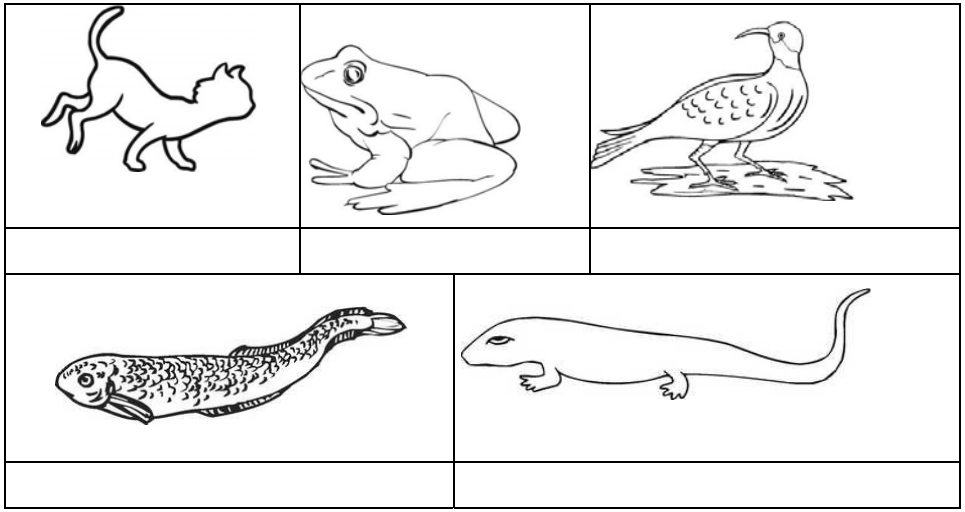
BONES

(Follow the orange dots and signs)

1. Look at the labeled **skulls**. Determine which is a carnivore (C), omnivore (O), or herbivore (H)?

1. coyote	3. otter	5. dog	7. sheep
2. monkey	4. cougar	6. cow	8. donkey

2. Vertebrates are composed of 5 groups. Write the name of the vertebrate and draw in the position of the spine. Look at the models for help.

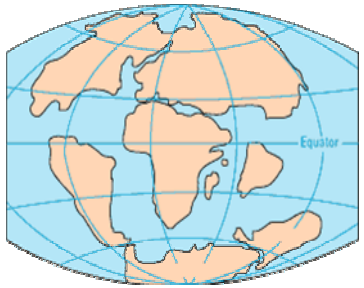


3. Look at the Mountain Lion "**backbone**." Draw the sequence of the bone to see if you can identify the different vertebrae.

cervicals thorasics lumbars

CENOZOIC ERA

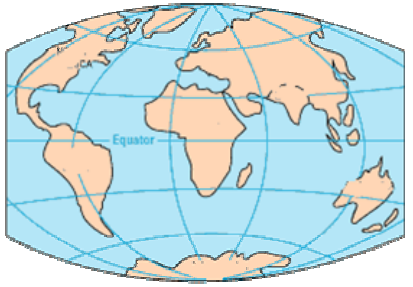
3. The land masses started to break apart, creating many shallow seas. Look at the display and list the organisms that were abundant in this environment? (Clue: look for red dot)



65 million years ago, end of Cretaceous

QUATERNARY PERIOD

4. Look at the Time chart on the wall and find the red dot. This represents only a small time slice of the Geologic Time scale. It begins with the Pleistocene Epoch or "Ice Age." The presence of Irvingtonian Fossils represents the beginning of the Pleistocene in the San Francisco Bay area. The Irvingtonian fossils are named for what district in Fremont?



5. Look at the display - Rocks of California. Which type of rocks only has fossils? (Circle the answer)

igneous sedimentary metamorphic

PLEISTOCENE ORGANISMS OF IRVINGTON

(Follow the Blue Dots)

Mammoth

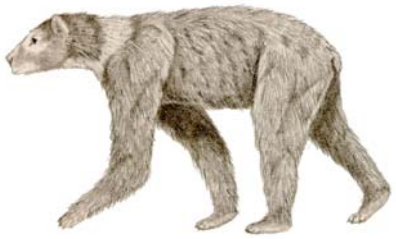
1 a. Look at the cow femur (notice side 1 and side 2). Can you guess which part of the femur does fossil # 4716 and fossil # 0525 come from?

1 b. Read the information on the mammoth? Explain why the mammoth tooth (#0531) is so large?

Sabertooth cat

2. Look at the skull of the sabertooth cat? Was it a carnivore or herbivore? How can you tell?

Giant Short-faced Cave Bear



3. Look at the bear specimen #0549 (radius) . Draw on the figure which bone you think it might be. Clue: look at the human arm and radius of a puma. (illustration by R. Sanfilippo)

Horse

4. Which part of the fossil horse does this represent(#4721)? (Clue, look at the other bones)

Antelocaprid (pronghorn)

5. ***Tetrameryx irvingtonesis*** was first identified from this area (#5128,4615). Look at the present day jaws of deer and cows below. Which one does the fossil look like and why?

Camelids

6. Look at the various fossil camel teeth. Draw the outline of the top of the camelid tooth (notice the "W"). Draw the horse tooth next to it. How is it different from a horse's tooth?

Ground Sloth

7. Circle on the figure on the left, which part of the sloth this fossil comes from? (clue: mandible is the lower jaw bone; maxilla is the upper jaw)