Bay Area Scientists in Schools Presentation Plan

Lesson Name: Teeth & Skulls
Presenter(s): IB: Jesyka
Grade Level: 1
Standards Connection(s): life science, animal diets and teeth

California Science Standards: Plants and animals meet their needs in different ways.
b. Students know both plants and animals need water, animals need food, and plants need light
c. Students know animals eat plants or other animals for food
d. Students know how to infer what animals eat from the shapes of their teeth

Teaser:
Your opportunity to tell teachers and kids what’s going to be fun and interesting about your visit!
Munch! Crunch! Animals have to eat to live and different animals eat different things. Some animals eat meat and some eat plants. Some animals eat both plants and meat! One way to find out what animal eats is by studying their teeth. Even when animals aren’t around to study anymore, we can tell a lot about the animal by the shape of their teeth!

Objective: As a result of your lesson, what will students learn? What will they be able to do?
Students will be able to recognize the different shapes of teeth and think critically about what type of diet certain animals might have based on their teeth.

Vocabulary/Definitions:
Diet: The food an animal eats
Environment: The place where an animal or plant lives
Carnivore: An animal that only eats other animals
Omnivore: An animal that eats both plants and animals
Herbivore: An animal that only eats plants

Materials:
What will you bring with you?
An array of skulls
Large laminated pictures
Matching game pictures and skulls/teeth
Clay, plaster, bowl, paper plates

What should students have ready (pencils, paper, scissors)?
Students should have pencils and a piece of paper ready

Classroom Set-up:
We will need to start the presentation as a whole group and then break the students into 2 groups.

**Classroom Visit**

1. **Personal Introduction:** _____5_____ Minutes
   *Who are you? What do you want to share with students and why? How will you connect this with students’ interests and experiences?*
   Hi! My name is Jesyka and I study bones and teeth at UC Berkeley. [Jesyka introduces herself]

2. **Topic Introduction:** _____10_____ Minutes
   *What questions will you ask to learn from students? Big Idea(s), vocabulary, assessing prior knowledge...*
   Every animal lives in a particular environment. Who knows what an environment is? [explain, show] Animals must

   Today, we are going to look at what adaptations animals have for eating different kinds of food. (Define carnivore, herbivore, omnivore, and give examples, pass around pictures). Ask students what type of eater they are. Have them feel their own teeth and describe some things that they notice. Describe animal teeth by showing the shapes with your fingers: herbivores have teeth that move flat together (open palms) and carnivores have pointed teeth that interlace (interlacing fingers).

3. **Learning Experience(s):** _____20-30_____ Minutes
   *What will you do, what will kids do? Demonstrations, hands-on activities, images, games, discussion, writing, measuring... Describe in order, including instructions to kids.*
   Group 1: Animal Diet Matching Game
   Students will look at a picture of an animal and their teeth and try to match them to a specific diet

   Group 2: Tooth Casting
   Students will look at loose teeth, make hypotheses as to what animals they came from and make a casting using clay and plaster

4. **Wrap-up: Sharing Experiences** _____10_____ Minutes
   *Putting the pieces together – how will students share learning, interpret experience, build vocabulary?*
   In a large group, ask for volunteers to describe some characteristics of the teeth of each type of eater. Think about some animals that don’t have teeth – what special eating adaptations can you think of (for example whales, insects, or leeches (ewl))?
What else might kids relate this to from their real-life experience? How can they learn more? Thanks and good-bye! Clean-up.

Next time you eat, notice which types of teeth you’re using and what they’re doing to different types of foods. How are your mouths adapted to eat all the different things you eat? What are some foods that are difficult for your mouth to eat?

Total 50 – 60 Minutes

Follow-up – After Presentation

Suggest students write a letter explaining “How we learned about __________?”

List or attach examples of activities, websites, connections for additional learning.

Attach worksheets, hand-outs, visuals used in classroom presentation.

To learn more about adaptation and extinct animals, come visit us at the University of California Museum of Paleontology! We’ll show you around our exhibits, tell you about our T. rex skeleton, and even let you look for fossils!

Refer teacher to:

http://www.paleoportal.org/
http://www.ucmp.berkeley.edu/education/explorations/tours/fossil/index.html
http://www.evolution.berkeley.edu/
http://www.undsci.berkeley.edu

Ask students to make up their own animal. Draw a picture of it and what it eats. What does its mouth look like? How is it adapted to its environment and its food sources?

UCMP “Clip-birds” lesson: http://www.ucmp.berkeley.edu/education/lessons/clipbirds/

Have students make a casting of their teeth with plaster of paris: Make a clay “sandwich” that will fit into your mouth. Bite into the mold and press the clay against your teeth, then carefully remove it. Tape a paper strip around the clay sandwich. Mix Plaster of Paris according to the directions and pour the plaster into the clay mold. Let it set for at least an hour, then carefully pull away the clay. Voila! A casting of your teeth.

Reading Connections:
- Whose Teeth Are These? by Wayne Lynch
- Teeth by Sneed B Collard III
  http://www.amazon.com/Teeth-Sneed-B-Collard/dp/1580891209/ref=pd_sim_b_1