Mastodon Curriculum for Grade 1

Mathematics

Where in the World Was the Mastodon?

- **Standard 1.4.5*:*** Math/Give and follow directions for finding a place or object.

Lesson: Using a classroom map, trace the journey of the first mastodons from Africa, through Europe, into Russia, across the Bering Straits, into North America, and down into South America (see Teacher Packet). Students should mark Africa on their maps and draw lines to show the migration from Africa to South America. Make certain to point out the area for Ft. Wayne where the Routsong Mastodon skeleton was found.

Using whipped cream, teacher can lather up the area covered by the polar Ice Cap (see Appendix for site that contains a map of the Ice Cap). See Teacher Packet for information to share with students on the Ice Age and what was alive then.

For field trips to IPFW, use the Buried Treasure map in this packet to locate the mastodon skeleton on display at the campus.

Check Appendix for art experience on cave drawings and petroglyphs.

King Tooth, a Different Kind of Ruler

- **Standard 1.5.1:** Math/Measure the length of objects with a non-standard unit or a standard unit.

Lesson: Using a mastodon tooth as the unit of measure, measure the length/width of a student desk, the perimeter of the classroom, the height of the teacher's desk, and the dimensions of any other object/s students choose. Use the drawing in this packet that replicates a mastodon tooth as the unit of measure.

Use inches/feet/yards as the standard units of measure for the following problems. Estimate how many mastodons could fit in your classroom. Predict whether a mastodon could fit through the classroom door. Predict how many mastodons could eat lunch together in the gym. Estimate how much space a mastodon family would occupy if that family had one baby.

What a Way to Weigh

- **Standard 1.5.5:** Math/Compare and order objects according to area, capacity, weight, and temperature, using direct comparison or a non-standard unit.

Lesson: Test a variety of objects to see how they compare to the weights of human or mastodon teeth (see Appendix for mastodon tooth drawing for weights). For example, "The mastodon tooth weighs about the same as (or less than) a quart of milk, or a whole head of cauliflower, or two of my shoes." Students should create a list of items they predict will be close to the weight of the tooth.

For Evaluating, Thinking/Interpreting, and Concluding

Talk about your predictions using words such as "taller, heavier, longer." For example, "I predict my sneaker is longer and heavier than the mastodon tooth." Measure and then make a concluding statement using appropriate vocabulary such as "My prediction that my sneaker was longer than the mastodon tooth was wrong. My sneaker is shorter than the tooth."

For number sentences of relationships, students can use magazine pictures of the items they weighed or measured. The mastodon tooth would be item A (on one side of the picture). Use a photo of a sack of potatoes (or whatever other items were measured) for item B (on the other side of the picture). If the tooth and the potatoes weighed the same, an equals mark would go between them.

The expressions for "greater than" or "less than" ($A > B$ or $A < B$)are other representations students can use to show relationships. Let A be the child's shoe or other object and B be the length of the mastodon tooth. Students will use the appropriate symbol to complete their number sentences. Students may choose to mark the actual weights or lengths for each of the items they measured on the pages with their number sentences (make sure they include the unit of measure they used: tooth, inches, pounds).

Language Arts

A Proboscis by Any Other Name Is a Nose

- **Standard 1:** Reading/Word Recognition and Vocabulary Development

Vocabularyasaurus Lesson: Learn as many of the words from the Mastodon Vocabulary List as you can fit into your studies. Use the Vocabulary Map in Appendix for your study.

Mastodon Vocabulary List

Carnivore
Catastrophe
Dinosaur
Extinct
Fossil
Geology
Habitat
Herbivore
Ice age
Insectivore
Land bridge
Life span
Mammoth
Mastodon
Migration
Omnivore
Proboscis
Quadruped
Reptile
Sediment
Tusks
Vertebrae

Extinction Lesson (Oh Where, Oh Where Has My Mastodon Gone?)
For the concept of extinction, use the music/lyrics in the book *Crocodile Smile* by Sarah Weeks and Lois Ehlert (track 6 on the CD included with book). In fact, many of the tracks on this CD relate to balance, habitat preservation, and concern for other species as necessary conditions to support life.

Understanding extinction is a key outcome of the mastodon study. Check the Internet, ACPL holdings, and other locations for enriching materials on the concept of extinction. Ask students to list names of creatures they believe to be extinct and those they believe to be endangered. Discuss with students what they can do to make a difference.

One of the goals of the mastodon project is for student to understand their role as valuable members of their community with responsibilities to help where and how they can. If appropriate, class or individuals might wish to work to contribute to Saving the Rainforest or contacting environmentalists to ask what they can do, or contributing to local projects that improve our habitat.

Herbivore, Carnivore, Omnivores Lesson: Using a Venn Diagram, label one circle for *herbivores,* and the other circle for *carnivores.* Designate the space where the circles overlap as *omnivores*. Paste pictures or write names of animals that belong in each classification. Review the results. Are any creatures mislabeled? Make changes if necessary. Use reference materials to make as complete a listing as possible.

Write an original poem, folk tale, or short story about **The Three Little Vores**. Herba, Omni, and Carni are names of the three little Vores. These three can be people or animals (even pigs!), or whatever the students wish to make them.

Culinary Lesson: Teachers or individual students can make up recipe names and ask class to decide whether dish would likely be eaten by a carnivore, omnivore, or an herbivore. Examples could include: oatmeal nut raisin juice, hay and pine nut salad, spinach meatballs baked with macaroni, lasagna with meatballs, oak leaves and hickory nut slaw, hot dog squish, grape and raisin cake with chicken wing icing, or gizzard pie. (Try not to confuse between meats and non-meats.).

Fossil Lesson: For the term *fossil,* try to have an actual fossil in the classroom for students to talk about. Refer to Teacher Packet for information. Students may want to start a classroom Ice Age display table and bring fossils in from home. They may have arrowheads that could go in the display as well as items the mastodon might have eaten for lunch (i.e., twigs and branches, pinecones, various woods nuts, and leaves).

Look Who's Talking

- **Standard 5:** Language Arts/Writing Applications/ Write a brief narrative describing an experience.

Lesson: *Write a short story about a mastodon, or write an account of having a mastodon at your house for a 'sleepover.' Work in as many real facts about mastodons as you can. See Teacher Packet* for additional information.

- **Standard 5:** Language arts/Writing Applications/Write for different purposes and to a specific audience or person.

Lesson: Write two of the following.

- Write an article for a newspaper that describes the mastodon and gives information about its daily life.
- Write a letter to a senator about making Indiana safe for all animals.
- Write a thank you letter to the Mastodons on Parade Committee for helping people learn about mastodons.

Eats, Shoots, Leaves

- **Standard 6:** Writing/Written English Language Conventions

Students should use punctuation, sentence structure, capitalization, spelling, handwriting standards for their grade level for all writing assignments.