

Mastodon Curriculum for Kindergarten

Mathematics

Toe Tappers

- **Standard K.1.9:** Record and organize information using objects and pictures.

Lesson: Collect pictures that show the toes of as many different kinds of animals as possible. Count the number of toes on one foot for each creature. Ask students to determine the range of toes they found (i.e., Animals with 0 toes up to 5 or more toes). Then label large sheets of poster board—one sheet for animals with 1 toe, a separate sheet for 2 toes, and so forth. Children should paste pictures of animals (Use the Internet, magazines, and other resources to locate or draw pictures of) on appropriate board. Make sure to include the mastodon. Try to find: beavers, horses, cows, pandas, moose, sloths, whales, dolphins, dogs, tigers, lions, bears, aardvarks, anteaters, pangolins, skunks, giraffes, and others.

For Evaluating, Thinking/Interpreting, and Concluding

As a class or in small groups, students should check their work. Are any animals in the wrong category? If so, make corrections. Make conclusions about: The most common number of toes, the least common number of toes, others?

In what other ways can students arrange the information? (One answer: from least to most toes and vice versa). Did any of the animals have a different number of toes on front legs/arms from the number on back legs?

Make a bar graph of results.

The Tooth the Whole Tooth and Nothing But....

- **Standard K.5.1:** Make direct comparisons of length, capacity, weight, and temperature of objects and recognize which object is shorter, longer, taller, lighter, heavier, warmer, cooler or holds more.

Lesson: Secure a human tooth (perhaps from a student who just lost one and wash it with a disinfectant!) or use the graphic included of both a human tooth and a mastodon tooth. Measure the length and width of both the mastodon tooth and the human tooth. Note the weights given on graphic for each. Test a variety of objects (pencils, paperclips, key, shoelaces, sunglasses, sneaker, etc.) to see how each compares to the weight of the mastodon tooth.

See how close students can get to the weight of the mastodon tooth through estimation. For example, student might predict: “I estimate the mastodon tooth weighs about the same as a quart of milk...or a whole head of cauliflower...or two of my shoes.”

Student should talk about their 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.”

Lesson: King Tooth, a Different Kind of Ruler (also for standard K.5.1)

Using length of a mastodon tooth (about 7 inches) 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: Estimate how many mastodons could fit in your classroom, and predict whether a mastodon could fit through the classroom door. Have students choose most usable standard of measurement.

For Evaluating, Thinking/Interpreting, and Concluding

Set up graphic statements of results. Using magazine pictures (or drawings) of items used, students can make an $A = B$ equation where A is picture of the mastodon tooth (on one side of the sheet) and B is the picture/s of items

The expressions of $A > B$ or $A < B$ are other graphic 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 symbols for 'greater than' and 'less than' in making their statements.

It's the Plane Truth

- **Standard K.4.1:** Identify and describe common geometric objects: circle, triangle, square, rectangle, and cube.

Lesson: Using the outline of a mastodon in Appendix, students should fill in the shape with a variety of geometric features. The cube will not be useful, but other geometric objects will be. They should make as complete a picture as possible. By drawing a line around outside edges of the geometric objects, students will see how close they came to matching the mastodon shape.

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.

Some say Po-Tate-Ohs; Some say Po-Tot-Ohs Lesson (on Herbivores and Carnivores)

Gather pictures of all kinds of mammals. On one big sheet of poster board, write *Herbivores* and on another, *Carnivores*. Paste pictures on the mammals on the appropriate poster. Evaluate the results. Are any creatures mis-labeled? Adjust pictures.

Make up recipe names and ask students to decide whether dish would likely be eaten by a carnivore or an omnivore. Examples could include: oatmeal nut raisin juice, hay and pine nut salad, city chicken drum sticks, spinach balls in baked macaroni, oak leaves and hickory nut slaw, hot dog squish, grape and raisin cake with chicken wing icing (the more fantastic, the better but try not to confuse between meats and nonmeats). If students can handle it, introduce the term *omnivore* for those mammals that eat everything—both vegetarian and meat. A Venn diagram works well for the three types of “vores.”

Copy Cats

- **Standard 7:** Listening and Speaking/Speaking applications

Lesson: Place a barrier (books, cardboard, whatever) between two students so student-speaker cannot see what artist-listener is drawing. Student-speaker will fill in with colors and designs a copy of the mastodon shape included in Appendix and then describe it to his/her partner. The partner will try to fill in what he/she hears with crayons/colored pencils on a sheet of paper containing a blank mastodon outline.

Same experience can be used for drawings of mythical creatures (no outlines provided; just blank sheets of paper) or for describing/copying pictures of various related things such as fossils.

Following exercises, students/class should discuss where directions were murky, which words were unclear or not specific enough, whether speaker spoke too fast/slow, whether the speaker presented information in a logical way with understandable words.

It Was a Dark and Stormy Night

- **Standard 3:** Literary Response and Analysis: Distinguish fantasy from reality.

Lesson: Students should write very short stories that relate to the mastodon. The porquoi or “Why” tale is especially appropriate for younger writers. They can explain WHY the mastodon has some particular trait (a hump on its back, tusks, a long nose, a tail, floppy ears, thick fur, etc.). Students could also write tall tales or fables, or other kinds of fantasy. If necessary, these stories can be “As told to...my mom, or my teacher, etc.). In this case, the writer needs to put down exactly what the student says, give student a chance to make changes, and not embellish or add his/her own ideas.

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 assignment.