

# Make-a-Fossil

## Waco Mammoth Site—First to Fifth Grade Activity

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### Objectives

- Learn what fossil imprints are and how they are formed
- Think critically about evidence
- Use fine motor skills to create an artistic object the child keeps

### Materials

- Crayola Air-Dry Clay, 5 lb bucket
- Diamond Mini Cups with lids (used for gelatin or salad dressing)
- Assortment of plastic animals with detailed feet, shells, and natural objects, such as acorns



### Preparation

Fill each cup with clay, pressing it down. Cover each cup with a cap to prevent it from drying. Makes 50 cups.

### Procedure

1. Using photos (included) and actual fossils (if available), show how some fossils are shapes or prints in rock.
2. Explain how these fossils are formed, either by animal activity reshaping soil, or by an animal's body being trapped in soil, then decaying.
3. Have students think about which fossils would be created by certain scenarios:
  - What would it look like if a saber-tooth cat were chasing a deer?
  - What if a herd of mammoths passed through an area?
  - What if worms dug tunnels in the mud?
  - What if a seashell were buried in the mud?
4. Discuss what can and cannot be learned from a fossil.
  - Dinosaur footprints tell you if they traveled in groups, but do not tell you what color the dinosaur was.
  - The impression of a seashell tells you there was water, but it does not tell you what time of day it was buried.
  - A large hole will tell you an animal burrowed there, but it does not tell you if it was male or female.
5. Distribute cups of clay and objects for making prints. Have students choose items and make impressions in the clay.
6. Have students write and illustrate a story about what created their fossil, one or two sentences per grade level.
7. Leave cups open. The clay will dry in three days, at which point, the fossils will easily come out of the cups.

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### TEKS Alignment

#### Grade 1

§110.12 ELA: 6.BC, 14.A-D, 17.A-E, 18.A, 19.A, 20.A-C, 21.A-C, 22.A-E, 27.AB, 28

§111.13 Math: 10.B, 12.A, 13

§112.12 Science: 1.A-C, 2.A-E, 3.BC, 6.CD

§117.5 Art: 1.AB, 2.A-C, 4.AB

#### Grade 2

§110.13 ELA: 5.B, 14.A-D, 15.B, 17.A-E, 18.A, 19.A, 21.A-C, 22.A-C, 23A-F, 28.AB, 29

§111.14 Math: 11.C, 12.CD, 13.A, 14

§112.13 Science: 1.A-C, 2.ACDE, 3.B, 5.CD, 6.CD, 7.A

§117.8 Art: 1.AB, 2.A-C

#### Grade 3

§110.14 ELA: 4.B, 13.A-D, 15.B, 17.ACDE, 20.A, 22.A-C, 23.A-D, 24.A-G, 29.AB, 30

§111.15 Math: 13.C, 14.CD, 15.A, 16.AB

§112.14 Science: 1.AB, 2.ADEF, 3.AC, 7.A, 9.A, 10.A

§117.11 Art: 1.AB, 2.A-C

#### Grade 4

§110.15 ELA: 2.B, 11.CD, 13.AB, 15.A-D, 18.A, 20.A-C, 21.A-C, 22.A-D, 27.AB, 28

§111.16 Math: 9.AB, 14.B-D, 15.A, 16.AB

§112.15 Science: 1.AB, 2.ABDE, 3.AC, 7.B

§117.14 Art: 2.B, 4.A

#### Grade 5

§110.16 ELA: 2.B, 11.A-E, 13.AB, 15.A-D, 18.A, 20.A-C, 21.A-C, 22.A-D, 27.A-C, 28

§111.17 Math: 7, 12.B, 14.B-D, 15.A, 16.AB

§112.16 Science: 1.AB, 2.DEF, 3.A, 7.AD, 9.A, 10.A

§117.17 Art: 2.C, 4.A

### In this pack, you will find:

- Lesson plan and TEKS alignment
- Sheets for students to record observations (grade 1-2 and grade 3-5)
- Elements to use on bulletin boards or overhead projections





## Dinosaur Footprint in Glen Rose, Texas



Photo by Dava Butler, used with permission.

1. A dinosaur leaves a footprint in mud.
2. The footprint is covered and filled with sand.
3. The mud turns to mudstone, the sand turns to sandstone.
4. Water erodes the sandstone, revealing the fossil footprint.

# Ammonite Imprint in Whitney, Texas



Photo by Dava Butler, used with permission.

# Seashell Imprint in Waco, Texas



Photo by Kris Juntunen, used with permission.

1. A shell is buried in mud.
2. The mud turns to mudstone.
3. The shell rots away, leaving a hole in its shape.
4. The stone cracks open, revealing the fossil imprint.

# Let's Think About Tracks!



## What We Know:

1. We see no claw marks, so we know it's a cat, not a dog.
2. The blurry circle around each paw print tells us the cat had long fur.
3. The cat walked in a circle.
4. The prints are deep, so the soil was soft.

## What We Don't Know:

1. The time of day the cat was here
2. If the cat was a girl or boy
3. The color of the cat
4. How old the cat was
5. Why the cat was here
6. If the cat was healthy
7. If the cat was happy

Photo by Dava Butler, used with permission