

Guide for Teachers & Chaperones

Museum Basics

For location, hours, and admissions, call (512) 471-1604, or go online at <http://tmm.utexas.edu/>

History of the Museum

Texas Memorial Museum (TMM) was chartered by the Texas State Legislature in 1935 for Texas' centennial anniversary. It became part of The University of Texas at Austin in 1959. TMM is a traditional natural science museum focused on preserving, studying, and interpreting the natural heritage of Texas. TMM exhibits the University's collections of over 5 million specimens, from fishes to fossils, which show how the flora and fauna of Texas have changed throughout Earth's history.

Preparing Students for a Field Trip

Research on students' museum experiences has shown the importance of orienting students, so they experience less novelty on the day of the museum visit.¹ Preparation allows them to devote more attention exploring and learning from the exhibits.

We recommend reviewing the following information before the field trip:

- Where students are going and what they will see
- What to wear and items to bring (pencil, clipboard, camera, lunch, water bottle, etc.)
- When the buses depart and return
- Whether they will have an opportunity to make purchases in the gift shop

You may want to show students a map of the museum so they know the basic museum layout, including where the restrooms are located. A map of the museum is available online at <http://tmm.utexas.edu/exhibits/tmmexmap.pdf>. For more information on current exhibits, please visit <http://tmm.utexas.edu/exhibits/>.

Setting Expectations

We appreciate your cooperation in keeping our exhibits in working order by treating them with respect. Running is not permitted in the museum, and students must be accompanied by a chaperone at all times. Additionally, food is not allowed in the museum. ***Please reiterate these behavioral expectations to your students on the day of the field trip and take an active role in enforcing these standards.***

Discussing and Questioning

Informal learning at museums takes place within each student's particular personal, social, and physical context.² Therefore, ***it is important to engage students personally, socially, and physically with the context of the museum.*** We particularly recommend asking students questions as you walk with them through the exhibits, as well as helping them generate their own questions. Student-driven questions can provide the basis for further learning and cultivate students' interests in science.

Guide for Teachers & Chaperones

Questioning Strategies

The US Department of Education suggests five questioning strategies for engaging students during museum visits.³ We have given examples that relate to the exhibits at TMM for each strategy.

1) Compare and contrast

- Does that fossil remind you of any animals living today?
- How are the Mosasaur and Plesiosaur similar?
- Which bird has the longest bill?
- How is a bison different from a longhorn?

2) Describe/Explain

- How would you describe the meteorite?
- What is the petrified tree stump made of?
- How would sharp teeth help *T. rex* survive?
- How does a footprint fossil form?

3) Identify

- What time period are these fossils from?
- Is that fossil a dinosaur?
- In what region of Texas would you find these animals?
- Which snakes are venomous?

4) Predict

- If someone found a fossil today, how would it get to the museum?
- What do you think would happen if two Columbian Mammoths fought each other?
- How do you think the geology or habitats of Texas might change in the future?
- Why are the coyotes and raven watching the mountain lion eat the deer? What will happen next?

5) Summarize

- What is a fossil?
- What are the differences between meteoroids, meteors, and meteorites?
- What are the different natural regions of Texas?

Resources for Teachers and Educators

We have a *wide variety of free resources*, including exhibit guides, worksheets, and scavenger hunts that can help you make the most out of your students' visits to the museum. We have included a teacher's guide with each worksheet that gives an overview, a list of aligned TEKS standards, and suggestions for pre- and post-visit activities. Please visit <http://tmm.utexas.edu/education> to download these free resources.

We look forward to seeing you at the museum!

Guide for Teachers & Chaperones

References

1. Anderson, D., & Lucas, K. B. (1997). The effectiveness of orienting students to the physical features of a science museum prior to visitation. *Research in Science Education*, 27(4), 485-495.
2. Falk, J., & Storksdieck, M. (2005). Using the contextual model of learning to understand visitor learning from a science center exhibition. *Science Education*, 89(5), 744-778.
3. US Department of Education (1998). Museums and Learning: A Guide for Family Visits. Retrieved from <http://www2.ed.gov/pubs/Museum/index.html>