Paving the Way for STEM in History Museums
Becoming a Habitat for Teachers: Designing Educator Workshops with STEM in Mind

Activity Session
Discussion Group Guidelines

- Use “I” statements and speak only from your own experience
- Assume good intent and be aware of your impact
- Maintain confidentiality—what is said here stays here, what is learned here leaves here
- Share the air—leave room for everyone to speak and don’t interrupt
- Seek first to understand—ask questions to clarify, not to debate
- Participation may be verbal, but it is also deep listening
- Challenge yourself and engage with discomfort
- Be willing to make a mistake and be understanding when others make them
- Seek to learn from differences—everyone’s unique backgrounds give us different life experiences
Teacher Program Planning Template

- www.thc.texas.gov/museumSTEM
Biology and Environment: Bat Habitats
Biology and Environment: Bat Habitats

TxDOT Partners with Texas Tech to Study Bats in Texas

Scroll down to learn more.

Bats are big in Texas.

They each may have a wingspan of only a few inches, but their collective impact is almost as big as Texas itself. More than 100 million bats take to the skies every night when each one can...
Biology and Environment: Bat Habitats

32 Bat Species in Texas
Arranged regionally. Color codes correspond to map.

- **Mexican Long-nosed Bat** (endangered) *Gymnophia mexicana*.
  - A medium-size bat with short ears and no tail. This Mexican species roosts in the Big Bend Region. This bat is listed as endangered by the Texas Parks and Wildlife Department, although the species is vibrant throughout much of Mexico.

- **California Myotis** (Myotis californicus).
  - A small bat with short limbs and a relatively long tail and ears. This is a western species, found in the Trans-Pecos region of Texas.

- **Fringed Myotis** (Myotis thysanodes).
  - A large bat with large ears featuring short tails. The species is migratory and can be found in the Trans-Pecos region of Texas during the summer.

- **Long-legged Myotis** (Myotis volans).
  - A large bat with a relatively long tail, short ears, and large feet. This species occurs in the central range of the Trans-Pecos region of Texas.

- **Western Red Bat** (Lasiurus borealis).
  - A medium-size bat with a rusty red to brown coloration. Although this species is found throughout the United States and southern Mexico, only one specimen has been found in Texas in Presidio County.

- **Townsend's Big-eared Bat** (Corynorhinus townsendii).
  - A medium-size bat with very large, flexible ears and a noticeable growth on each side of the nose. This bat’s coloration is a nearly uniform brown with slightly paler underparts. The bat can be found in the western half of the state.

- **Pipistrelle Bat** (Molossus molossus).
  - A small bat with a large head and ears. This species is common in the southeastern United States and is known to roost in trees.

- **Precipice Bat** (Antrozous pallidus).
  - A small bat with relatively large ears. The coloration is brown, and it is found in the southeastern United States and Texas.

- **Yuma Myotis** (Myotis yumanensis).
  - A small bat with relatively large ears. The coloration is brown, and this species is found in the southwestern United States and Mexico.

- **Western Bent-winged Bat** (Miniopterus schreibersii).
  - A medium-size bat with a brown or gray coloration. It is found in the southwestern United States and Mexico.

- **Pallid Bat** (Antrozous pallidus).
  - A large bat with large ears and feet. This species is found in the southeastern United States.

- **Western Small-footed Myotis** (Myotis leibii).
  - A small bat with small feet, short ears, and relatively long tails. This species is primarily found in the Trans-Pecos region of Texas. Although multiple records indicate a small population occurring in the High Plains of the Panhandle, it is primarily found in the Trans-Pecos region of Texas.
Resources for this Activity

- Teacher Program Planning Template: [www.thc.texas.gov/museumSTEM](http://www.thc.texas.gov/museumSTEM)
- Beyond the Road: Bats and Bridges: [https://arcg.is/HyObW](https://arcg.is/HyObW)
- Texas Bats and Bridges; A Mutually Beneficial Relationship video: [https://www.youtube.com/watch?v=L91Cr7t-dmg&ab_channel=TxDOT](https://www.youtube.com/watch?v=L91Cr7t-dmg&ab_channel=TxDOT)
Group Activity

We’re going to put you into randomly selected breakout rooms to facilitate small group discussion for today’s activity.

Facilitators from the Bullock Museum and the Texas Historical Commission will be jumping in and out of the breakout rooms to see how you’re doing and answer any questions.

If you have questions when one of us is not in your breakout room, select “Ask for Help” in your control bar and one of us will quickly join you.

We’ll communicate logistical details like how much time you have left via announcements that will appear at the top of your breakout room screen.
Group Activity

Take just a few minutes to look through the Teacher Programs Planning Template and some of the suggested bat resources.

Decide whose institution you want to use as example (or create your own!). Work through the program planning template (note, you may need to go out of order. Fill things out as they come to mind).

You won’t have time to fully go through the TxDOT Resources, or to fill out the whole template. The goal is to get an overall vision for the program you’re planning, and start to think through the details.

By the end of your discussion time, have three things to share out with the full group:
- What type of program did you plan?
- Tell us about some of the details you were able to think through.
- Why did you make those choices?