



CASE STUDY

K-12 Instructor Brings the World to Mesquite, TX Students Through VR with Google Expeditions



Mesquite High School

Mesquite, Texas

<https://mesquitehighschool.mesquiteisd.org>

Tai Preuninger, an instructional technology facilitator for grades K-12 in Mesquite, Texas, believes technology should be used to spark curiosity and foster new ways of learning for students. She runs the Innovative Learning Studio at Mesquite High School “to prepare and nurture curious, adaptive, and creative thinkers who contribute to a changing world.” Tai uses Google Expeditions and Tour Creator with middle and high school students to expand their educational experiences beyond the classroom walls. Their student-created expedition [Pioneer Life on the Prairie](#) is publicly available on [Poly](#), Google’s site where VR and 3D content is hosted for users to explore.

Why did you decide to use Expeditions in your classroom?

I work in a district with over 40,000 students, and most of them have never left our city of Mesquite, Texas, let alone seen the world. By allowing our kids to see the world through Expeditions, we are helping to build and shape their global perspective. I feel I have a responsibility to give them these types of learning opportunities.

Teaching with Expeditions

Tai offers classroom teaching strategies for using Expeditions and VR:

- When planning any lesson, I always begin with our local standard/objective. I'll search for related topics in Expeditions, or if it involves any particular place, I'll search for it by name. If I can't find what I'm looking for, I'll just build my own with Tour Creator.
- While I'm designing a lesson I use one of these [lesson planning docs](#).
- For each scene, I generate essential questions that are related to our main objective. The answers aren't necessarily found in the expedition; they're questions that make kids think about something they see in the scene.
- We never do an expedition in isolation; it is embedded in the learning process. I begin class with a related warm-up (usually a Google Classroom question with a Google Earth link).
- I pre-teach the expedition vocabulary they'll need for the objective.
- I give students an activity to complete concurrently with the expedition, either through a student handout or digital check for understanding.
- I close with a reflection piece, asking students to discuss the original learning objective.

For example, see a lesson plan for a [science expedition on biodiversity](#).

“Expeditions lets students link modern-day content to history. They craft a narrative, share a story, and back it up with historical sources. We can't wait to do another one!”

—*Tai Preuninger, Instructional Technology Facilitator, Mesquite (TX) Independent School District*

How does Expeditions help you accomplish your instructional goals?

I have two beliefs about the integration of technology in instruction: (1) We have to provide academic experiences that foster curiosity, and (2) students learn better in a meaningful, relevant, and real-world context. When students are exposed to new places and information, they instantly develop questions because they are inherently curious. Expeditions immerses kids into the actual places we are learning about, so short of physically going there, there's nothing better.

What strategies do you use when teaching Expeditions?

How do you use Expeditions in the classroom—is it an integrated part of your curriculum?

When planning any lesson, I always begin with our local standard/objective. I'll search for related topics in Expeditions and if I can't find exactly what I'm looking for, I'll just build my own with Tour Creator.

While I'm designing the lesson I always use one of these lesson planning templates. Most of the time it's a collaborative process with fellow teachers.

What advice would you give teachers using Expeditions for the first time?

Teachers should preview and participate in the Expeditions content before running it with kids. Once students view the tour themselves, don't try to tell them everything they “need to know.” They will be so engaged; they won't hear what you are saying. Give them time to discover and ask questions. For classroom management, always set student expectations for what they

should be doing during the tour. Stay in your square (or area) because you don't need to walk around. Create and practice verbal commands like "Goggles down" so you're not taking extra time in between transitions. (Teachers can also use the "Pause" feature in Expeditions that prompts students to put down their viewers at regular intervals).

How do you think Expeditions can impact student engagement and learning?

There's no doubt that students are engaged while viewing Expeditions. The question is, what kind of deep learning experience have we designed for these kids now that we have their attention? We should be able to accomplish just about anything. In addition, my students are amazed they can view the expeditions on their own devices and at home. I've had so many kids tell me they shared what they saw and learned at school with their family at home.

What are some of your favorite moments from leading students through expeditions?

The statements and questions that come out of their mouths are so genuine, and oftentimes hilarious. The answers may seem obvious to adults, but these students have never seen or experienced the things we see in Expeditions.

A few of my favorites include (for a White House tour), "Isn't that where all the dead presidents' bodies are kept?" and for a Natural Disasters tour, "You mean there's fire underneath the Earth?"

Being able to help them have a light bulb moment or clear up some misconceptions is truly a cool experience. It makes you feel like you're making a difference.

What do students enjoy about Expeditions?

I've heard students say it's like being in their own personal movie theater while sitting in class. It gives them an accurate visual to store in their minds that they can anchor to new information and learning.

Can you tell us about a memorable expedition that you and your students created?

Using Tour Creator, we developed Pioneer Life on the Prairie, to share the story of how Mesquite's early settlers were part of our nation's westward expansion. The tour provides context to help our kids understand what life was truly like years ago. My favorite memory involves showing it to a group of excited first graders who'd never experienced VR before. A friend captured a video of what I call "[the whoa factor](#)." You'd think they were swimming with sharks, but they're looking at a 19th century sewing room in one of our town's old pioneer homes.

About Google Expeditions

Google Expeditions is an immersive learning tool that helps teachers engage students through rich virtual and augmented reality tours. Expeditions works on Android and iOS across phones, tablets, and even standalone VR devices like the Lenovo Mirage Solo. Learn more at [g.co/expeditions](https://www.google.com/expeditions).

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