

TAME's traveling Trailblazers are one-of-a-kind science museums-on-wheels. Exciting, hands-on exhibits teach students about energy, space, weather, biotechnology, and aerodynamics while also introducing them to educational and career opportunities in STEM.

Exhibits are mapped to science TEKS for grades 3-8, and teachers receive pre-visit activities and follow-up materials to sustain student interest long after the Trailblazer drives off campus. Each Trailblazer, housed in a 40-foot trailer can accommodate **30 students at a time**. Students take at least **35-45 minutes per group**, and about **200 students** can visit each trailer per day. The hosting organization provides a minimum of five volunteers. A TAME Trailblazer Facilitator delivers the Trailblazer, trains volunteers and coordinates the event at the school.



**The TAME Trailblazers don't just show kids the moon—
they show them how to get there.**

FOR SCHEDULING AND COST INFORMATION, please contact the Trailblazer Program Coordinator:
trailblazer@tame.org | (512) 471-6100

You can watch the Trailblazers in action: <http://www.tame.org/programs/trailblazer>

STEM CONCEPTS & EXHIBITS



WEATHER FORECASTING



VAN DE GRAAFF GENERATOR



SOLAR CELL

EXHIBIT AREA: ENERGY

Conservation, transformation and transmission of energy, power generation, alternative energy sources

Trailblazer I

Hand Crank Generator, Energy Tubes, Energy Transmission Demonstration, Radiometer, Solar Cell, Videos

Trailblazer II

Bicycle Wheel Generator, Energy Tubes, Energy Transmission Demonstration, Solar Cell, Wind Turbine, Videos

EXHIBIT AREA: SPACE

Space flight, gravity, propulsion, working in space, impact of solar activity on earth, NASA products in everyday life

Trailblazer I

Robotic Arm, Relative Gravity Demonstration, Ion Powered Rocket Engine, Microgravity, Videos

Trailblazer II

Thermal Imaging, Relative Gravity Demonstration, Solar Flare, Videos

EXHIBIT AREA: BIO TECH/MEDICINE

Pathogens, bones, body temperature, X-rays, robotics & surgery

Trailblazer I

Stethoscope, Pulse Oximeter, MRI, X-Rays, Microscopes

Trailblazer II

Robotic Arm, Chromatography, Genetic Mutation, Hi-Def Microscope, Videos

EXHIBIT AREA: WEATHER

Weather forecasting, predictive technology, science of tornadoes

Trailblazer I

Televised Weather Forecasting, Tornado Chamber, Plasma Ball, Van de Graaff Generator, Videos

Trailblazer II

Televised Weather Forecasting, Tornado Chamber, Hindcasting, Plasma Ball, Van de Graaff Generator, Videos

EXHIBIT AREA: AERODYNAMICS

Bernoulli's Principle, aerodynamic shapes, civil engineering

Trailblazer I

Wind Tunnels, Turbulence Interactives, Bernoulli's Experiment, Videos

Trailblazer II

Wind Tunnels, Airfoil Interactive, Bernoulli's Experiment, Videos

“This opportunity that was afforded to our 180 8th graders was clearly one of a kind, hands-on learning experience. Every student who attended the TAME event from beginning to end left with knowledge, skills, and the feeling of “Hmmm... I want to be an engineer!”

— Mr. Fermin Gonzalez III, Memorial Middle School Principal, Edinburg, Texas