



## Tests of Engineering Aptitude, Mathematics, and Science (TEAMS)

TEAMS is an annual competition designed to help high school students discover their STEM potential. Teams of four to eight students apply their knowledge in practical, creative ways to solve real-world engineering challenges.

### TEAMS High School Scenarios:

**Preserving the Wild in Sub-Saharan Africa:** Your team will consider engineering applications in the wild where engineering intersects with the ecotourism industry and conservation efforts.

**Sustainable Land Development and Water Conservation:** Your team will consider site selection and development patterns using sustainable design components such as alternative transportation, water reuse, and incorporation of natural processes to reduce the environmental footprint of the development and preserve the wild.

**Engineering and Natural Systems:** Your team will explore different nature-inspired algorithms and principles used to tackle large-scale problems in areas such as vehicle route planning.

**Electricity off the Grid and into the Wild:** Your team will perform calculations and basic interpretations of real data in order to evaluate designs used in different environmental contexts.

**Environmental Damages from Renewable Energy:** Your team will utilize effective design requirements to examine the trade-offs in using renewable energy to preserve the environment and the current balance of nature.

**Transportation in the Frozen Tundra:** Your team will apply the laws of nature and time to determine the transportation of time sensitive cargo within a snowstorm in Alaska.

**Canopy Walkways for Wildlife Crossings:** Your team will utilize various tools and formulas in order to understand and optimize the design of wildlife bridges.

**Biomimicry Engineering Designs in the Wild:** Your team will use basic principles of physics and mechanics to understand and measure various aspects of different organisms and how they may be used for new engineering designs.

### Registration is now open!

**DATE:** Saturday, February 22, 2020

**TIME:** 8:00 AM to 2:00 PM

**PLACE:** University Center Tennessee Room

Lunch is provided for TEAMS members and coaches.

State-level rankings are provided for each of the three competition components: Essay, Multiple Choice, and Design/Build.

“Best in State” rankings are determined by combining all three of these scores.

“Best in State” awards for the highest ranking teams in each state are announced in early May.

The highest-ranking state teams at each level will be invited (at their own expense) to compete in the National TEAMS Competition at the National TSA Conference.



To learn more, visit:

<https://vimeo.com/233017095>