WHAT IS MIND TREKKERS?

Mind Trekkers is a non-profit organization that creates opportunities for K-12 students to engage in learning through hands-on activities in the STEM (science, technology, engineering, and mathematics) fields. Through festivals across the US and in afterschool clubs in our own community, Mind Trekkers undergrad/grad student volunteers use experiential learning to help young people find their enthusiasm for exploring STEM principles and careers. The Mind Trekkers team members act as role models and near-peer mentors as they help students define their interests and aptitudes in these high-energy events full of activities lasting between 30 seconds to 3 minutes.

HOW DID MIND TREKKERS BEGIN?

The Mind Trekkers STEM Road Show was created in 2010, hosting over 35,000 Boy Scouts at the 2010 National Jamboree through their science filled 40’x60’ tent over 5 days. Since then, Mind Trekkers has grown in scope and scale, participating in and hosting STEM Festivals from San Francisco to Washington D.C. Tailoring their events to groups of students from grades PK-12, we have found a special niche with upper elementary and middle school students. Mind Trekkers looks to span the ‘attraction gap’ created when these students begin to self-select out of engagement in STEM courses. During these years student’s find these courses move from exploration to work. Mind Trekkers utilizes innovative and engaging activities to bring the WOW! of STEM to the hands of the young participants. Mind Trekkers volunteers, consisting of undergrad/grad students, ignite inquisitiveness in each participant. Students bridge the ‘attraction gap’, traveling back to the land of discovery and inspiration.

WHO STARTED IT?

The group had two founding advisors, Cody Kangas and Steve Patchin, who have played a huge role in the creation of Mind Trekkers. The original volunteers were a group of 12 students that attended all of the events during Mind Trekkers’ first summer, the summer of 2010.
WHAT IS THE PURPOSE OF MIND TREKKERS THE STUDENT ORGANIZATION?

1. Creating a student organization provided an opportunity for Mind Trekkers to attend bigger festivals and expand outreach potential.
2. The student organization created capacity to effectively recruit, actively train, and regularly engage volunteers across campus.
3. Networking within the team provides opportunities for students involved with Mind Trekkers to connect with other activities and groups.
4. Michigan Tech students are given an opportunity to be creative, grow, teach and LEARN from Mind Trekkers. Leadership development is another benefit.

WHO CAN BE A MIND TREKKER?

Anyone. Any major, any year, any gender, and nationality. Mind Trekkers welcomes everyone; undergrad, grad, faculty, and staff from any department can join.

HOW MANY STUDENTS ARE CURRENTLY INVOLVED IN MIND TREKKERS?

There are over 1000 undergrad and grad students on our mailing list and approximately 75 active members, with a leadership team of six.

WHAT ARE THE COSTS FOR VOLUNTEERS?

There is absolutely no cost to participate in Mind Trekkers. Volunteers receive stipends to cover food costs during road shows; transportation and lodging are provided.

WHY SHOULD A STUDENT JOIN MIND TREKKERS?

1. Great opportunity to give back to the community. Seeing the look on a student’s face when they finally understand the science behind the mystery is priceless.
3. Joining Mind Trekkers is a great way to meet new friends! It is an enthusiastic bunch of students who are thrilled to have new faces join the team.
4. Exercise of communication skills. Practicing STEM education is a great way for students to learn how to communicate the sciences. Like Albert Einstein said, “If you can’t explain it simply, you don’t know it well enough”. The best way to learn is to teach, and the most fun way to teach is through Mind Trekkers.
WHAT ARE SOME OF YOUR MORE COMMON DEMOS?

- **Oobleck** - Non-Newtonian fluid. A liquid that produces a reaction force equal and opposite to the action force applied to it. This fluid allows for students to “walk on water.”
- **Liquid Nitrogen Ice Cream** – A delicious treat that students can enjoy made from a recipe involving liquid nitrogen.
- **Van de Graff Generator** – A machine that generates a charge. Students can touch the machine and feel a shock! Facilitators are encouraged to line the students up so that an entire group can get shocked all at once.
- **Dragon’s Breath** – This exciting snack is soaked in liquid nitrogen and then set out to warm up a bit before kids can eat them. The temperature change of the cold of the liquid nitrogen to the warm of the student’s mouth creates evaporation and the students can breathe out dragon’s breath.

HOW IS THE PROGRAM FUNDED?

Mind Trekkers is funded by a variety of sources which includes: foundations, governmental agencies, corporations, Michigan Tech, and private/public institutions. As we grow this list becomes longer and more diverse. Organizations that are interested in energizing students about learning from school Parent/Teacher Organizations to industry (AT&T, 3M, Dow Chemical, Chevron etc.) are supporting Mind Trekkers to inspire students about STEM.

GROWTH AND EXPANSION

In January 2013, the Center for Pre-College Outreach hired a full-time coordinator for the Mind Trekkers project. In the time since, Mind Trekkers has traveled coast-to-coast across the US to 31 locations and impacted several thousands of K-12 students. The capacity of the organization to demonstrate STEM principles has grown to over 180 demos, many of which are available online at mindtrekkers.mtu.edu. By creating a resource for open-source education, Mind Trekkers can impact classrooms globally and bring Michigan Tech’s hands-on approach to students everywhere.

WHAT IS IN STORE FOR MIND TREKKERS IN THE COMING YEAR (2014-15)?

Mind Trekkers currently has 12 events scheduled within the next 12 months with new requests coming in weekly. The team has events booked in Michigan, Wisconsin, Minnesota, Missouri, Texas, and more on the horizon.