# Tatanka Elementary STEM School

Engineering Our Future

Visit Us To find out more information, tour the school and register contact us at 763.682.8600.

# Welcome to Tatanka Elementary STEM School

## Science | Technology | Engineering | Math

At Tatanka Elementary STEM School (TESS), we offer a specialized curriculum that helps students become critical thinkers and problem solvers. Science, Technology, Engineering and Math (STEM) concepts are integrated into classroom lessons. Through these experiences, our students Collaborate, Communicate, think Critically, and use Creativity (the four Cs) to develop a deeper understanding of all the STEM components. We build upon children's natural curiosity to help them research questions, investigate problems and develop solutions using STEM concepts. This active, "minds on" approach prepares students with the skills they need to be successful in the 21st century. "When looking at options for our child, Tatanka rose to the top for several reasons: small class sizes, STEM, fantastic teachers and staff, and the school's ability to serve my son's additional needs. STEM develops problem solving and analytical skills that benefit students in the classroom and throughout their lives." –Beth, parent



# What Makes Tatanka Elementary STEM School Unique

#### **Magnet School**

TESS is a magnet school—a public school with a specialized curriculum. There is no fee to attend and transportation is provided. Students living in the TESS neighborhood boundary are automatically enrolled in the school. In addition, anyone within the district (and from a member district within the Northwest Suburban Integration School District—NWSISD) can apply for one of the open seats

available at each grade level. Those families who open enroll apply through a lottery process with NWSISD.

### **Engineering Focus**

The primary focus at TESS is on engineering—the application of science—and how it plays a part

in everything a student learns, from reading and writing to math and science. Engineering is the creation of a technology to meet a human need or desire. TESS students engineer a variety of technologies throughout their K-5 education.

#### "Minds On" Approach

We embed the five Es—Engage, Explore, Explain, Elaborate, Evaluate—into our learning. Students are guided through research questions and data analysis to investigate problems and develop answers using STEM concepts.

## Hands-On Learning through Technology

Students learn early on at TESS that technology is anything human-made that is used to solve a problem. Technology can be an object, a system or a process. Students learn that while computers and iPads are technology, so are pencils, chairs and even recipes. We use many learning tools such as Engineering Design Challenges, Makers Spaces, and Thinking Maps to

promote hands-on, engaged learning. Students are also exposed to coding projects using iPads to program Spheros and Lego WeDo 2.0 projects, while Bee-Bots are available for younger students to work on their coding skills.



#### **Daily Specialist Classes**

Students have a daily rotation between one of four specialist classes. Students at TESS participate in music and physical education and also have the unique opportunity to participate in extra art and writing classes with specialized teachers.



#### **Strong Parent Involvement**

Parents at TESS have a strong sense of pride in their school and students. A dedicated Parent Teacher Organization (PTO) meets monthly to plan events and raise funds for school needs. From Family Fitness Nights to Engineering Night to Family Fun Night to the annual STEMpede 5K Color Run, there are multiple ways for families to engage with their children in a fun, educational environment. In addition, parents are always invited to eat a meal with their child at school or volunteer in their classroom.

### STEM Example at TESS

In 2nd grade, students learn about the basic needs of a plant (sun, water, air). Using science, math, English and social studies, students then engineer a "new and improved" plant package technology. They use the Engineering Design Process (Ask, Imagine, Plan, Create, and Improve) to engineer a package that will keep the plant alive through the shipping process from the warehouse to the store. A variety of student-selected materials are used to create the plant package technology. As students engineer the package, they also consider the cost that will be charged to the consumer. At the end of the project, students test their packages by actually shipping them with UPS.

#### **Other Important Information**

**Transportation:** Vision Transportation of Buffalo provides bus service for BHM Schools. Families get free busing from anywhere within the district or from any NWISD member district to TESS and can designate up to one alternate location such as daycare or a relative's house for pick-up and drop-off. Contact Vision of Buffalo at 763.682.3232 for routing and other information.

**KidKare:** On-site KidKare extends your childs' learning day while providing high quality care in a safe and fun environment. KidKare is offered before



and after school, full days on most non-school days and during the summer. All-day preschool programming is also available for children ages 3-5. Call 763.682.8787 for more information.





#### Tatanka Elementary STEM School

703 8th Street NE Buffalo, MN 55313 763.682.8600 | bhmschools.org/schools/tatanka Grades: K–5 | Enrollment: 520 | Hours: 7:00 a.m.–3:00 p.m. Principal: Don Metzler | dmetzler@bhmschools.org