

MnDOT provides **free** high-quality curriculum, activities and initiatives both in and out of the classroom to help promote science, technology, engineering and mathematics (STEM) to students.

- ➔ KINDERGARTEN
- ➔ PRIMARY SCHOOL
- ➔ MIDDLE SCHOOL
- ➔ HIGH SCHOOL
- ➔ POST-SECONDARY

We strive to **develop and sustain a diverse and talented workforce** to fulfill our vision of creating a safe, efficient, and sustainable transportation system for the future.



Be sure to check out our student worker programs at:

[www.dot.state.mn.us/careers/student-grad.html](http://www.dot.state.mn.us/careers/student-grad.html)

Go online to learn more:

[www.mndot.gov/stem](http://www.mndot.gov/stem)

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# STEM



**FREE STEM RESOURCES**  
for educators, students and anyone interested in **science, technology, engineering and mathematics.**



# STEM TOPICS

MnDOT staff members are available to lead classroom activities and presentations that engage students in STEM related topics. Common topics include:

- Bridges
- Highway design
- Careers at MnDOT
- Bicycle and pedestrian improvements
- and more!

All topics and activities can be tailored to grades K-12.

## TOURS & FIELD TRIPS

MnDOT can arrange field trips for students to visit our facilities or construction projects when possible.

Go online to find activities and arrange tours and trips for your class:

[www.mndot.gov/stem](http://www.mndot.gov/stem)



# ONLINE AND IN-PERSON ACTIVITIES

## A to Z Career Cards

This online tool lets students learn about careers in the transportation industry. From Aeronautics to Work Zone Safety and everything in between.



## STEM Activity Books

Activity books allow kids to explore transportation related topics in a fun and engaging way. Download a copy of the Early Learner or Student editions today.

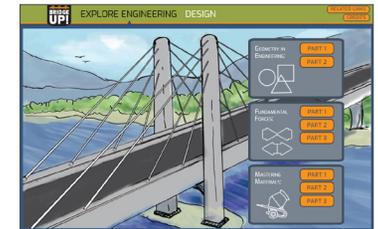


## Connect Your Community

This activity teaches students about designing streets for people. After watching a short video, students are asked to design their perfect street and include features that help bicyclists and pedestrians move safely and effectively.

## Bridge UP! Curriculum

A free STEM curriculum for teachers, students or anyone interested in science and math to learn about bridge construction and design. It provides engaging lesson plans for grades K-12.



## Streetmix Design

This activity teaches students about planning and design through the Streetmix program. Students are asked to design a street using bicycle and pedestrian considerations.

## Traffic Counting

This activity teaches students how to count bicycle and pedestrian traffic in their area and how that data is used to make improvements like adding crosswalks, benches, bus stops, and bicycle lanes.

*More resources are available on the STEM webpage*

## Bridge-in-a-Bag

Bridge-in-a-Bag is a classroom activity where students can build a model sized bridge. A MnDOT staff member can talk about bridge design while kids build an actual bridge.

