

Transportation Engineering

8-Week Session: After School STEM Club (K-5)

#	Activities	Source	Time
1	What Is Transportation? Let's Communicate: LEGO Match Activity Brain Saver – design helmet for your egg head Optional: Invite BIKE! club to come in and show variety of bikes and talk about bike safety (Curt Webb webcurt@gmail.com)	Intro Family Engineering Activity Guide Family Engineering Activity Guide 104 GLRC cabinet	5 min 15 min 40 mins 15 min
2	Engineering design process Design foil/ clay boat to hold the most weight Filler: What Does a Captain need? Filler: Parts of ship poster	Family Engineering Poster Family Engin ' <i>Learning from Failure</i> ' (Big Fitz big book & Great Lakes Maritime activity kit)	5 min 40 Mins 10-30 min
3	Forces: Stop That Truck Make Traffic Signs	Chris Gilbertson, CTE (TRAC lesson) Opener – ask Lloyd Wescoat	50 Mins 20 min
4	Airplane Spinners Hoop Gliders	Family Science Lesson ZOOM activity guide	40 Mins 20 min
5	Opener: Against the Wind Cars: Puff Mobile Speed Detector	Family Engin – ask Lloyd Wescoat ZOOM activity guide Will get from Dr. Bill Sproule, CEE	20 min 30-50 Mins 15 min
6	Bridges: Marshmallow & Toothpick Bridge Play Red Light, Green Light, Yellow Light Filler: Make paper bridge	Family Science Lesson -- PBS Engineering	50 Mins 10 min
7	Rail: Maglev Track Filler: Transportation Engineering Charades	David Nelson &/or REAC will present or provide Maglev track training for instructors Family Engin – ask Lloyd Wescoat	50 Mins 10-15 min
8	Gravity, Air and Egg Filler: Paper planes	Family Science Lesson ZOOM activity guide ?	50 Mins 20 min.
9	Five Points Traffic Jam Lesson	Family Engineering Activity Guide	50 Mins
10	Run-Away Puck: roads & friction	Family Science Lesson (ramps)	50 Mins