



TAG School for Young Scholars

Junior Engineering After School Lesson Topics

Kinder – 2nd grade (2:30PM – 4PM)

Number of Weeks	Lesson Title	Description
9/18/25	What is Engineering?	Discussion of the field of engineering. What is an engineer and the role they play in society?
9/25/25	Biomimicry	Learn about technology innovations based on natural design properties. Using nature-inspired design to build our robots.
10/2/25	Yom Kippur	NO SCHOOL
10/9/25	Simple Machines	Learn about the simple machines. How are simple machines used today?
10/16/25	Artistic Robot	Create a robot that can doodle.
10/23/25	Environmental Helpers	Create garbage truck to help in the environment.
10/30/25	Mechanical Hand	Learn how robotic arms can help.
11/6/25	Wind-up Robot	Create a wind-up toy robot.
11/13/25	PTC	NO SCHOOL
11/20/25	Mars Rover	Learn about Mars and the rover.
11/27/25	Thanksgiving	NO SCHOOL
12/4/25	Whirling Wonder	What makes a helicopter fly? Learn how a propeller works.
12/11/25	What is a Rocket?	Discussion on different parts of a rocket. Build rockets, test, and improve.
12/8/25	1, 2, 3 Lift Off	Students watch as solid dissolve in liquid and create a chemical reaction that will blast off their projects.
12/25/25	Winter Recess	NO SCHOOL
1/1/26	Winter Recess	NO SCHOOL
1/8/26	Liquid Density	Using different liquids to discuss different density levels.
1/15/26	Will it float or sink?	Students build a sail boat and test buoyancy.
1/22/26	Rumbling Rambler	Discussion on different parts of a car such as axles, gears, wheels and chassis.
1/29/26	Mechanical Gears	Students design their own wind up robots and learn the different mechanical parts such as gears, key, crown and the spiral spring.
2/5/26	Sweet Skyscraper	Create a tall tower using sweet gumdrops and toothpicks.
2/12/26	Racing for Speed	What makes a race car aerodynamic?

*Lessons are subject to change