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## Electronics Laboratory (In-School Fieldtrip) for 3<sup>rd</sup> Grade

### Introduction to Motors, Force and Motion

#### Students will

- Learn about electronics and electric circuit concepts
- Learn the description of motors and how they work
- Observe the effect of various forces (gravitational, electrical, mechanical, etc)
- Work in teams to build devices with motors and experiment with various motor speeds.



#### Alignment with County Curriculum for 3<sup>rd</sup> Grade

- Science Technology and Engineering:
  - Physical Sciences: Position and motion of objects, changes of motion, gravitational force, comparison of speed and distance of moving objects.
- Analysis
  - Identify the relationship between components of a circuit
- Collaboration
  - Work in teams on a circuit building challenge

#### Contact:

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## Explore Robotics & Coding: Introduction to Graphical Programming with BlocklyJoin Us for an Exciting In-School Field Trip and Explore the World of Programming!



Discover the exciting world of graphical programming using Blockly! In this engaging and interactive session, students will learn the basics of programming by guiding a robot through various navigation challenges. This is a fantastic opportunity for young minds to develop problem-solving skills, creativity, and a love for technology.

### What to Expect:

- Hands-On Learning: Students will use Blockly, a visual programming language, to control a robot.
- Fun Challenges: Navigate the robot through mazes, around obstacles, and more!
- No Experience Needed: Perfect for beginners, with easy-to-understand instructions.

### Why Participate?

- Enhance Critical Thinking: Develop logic and problem-solving skills.
- Boost Creativity: Learn how to create and execute a plan.
- Inspire Future Interests: A great introduction to the world of robotics and programming.

**Duration:** 1 Hour Per Session

