Robot City - Opportunity Outside the Classroom

Students will have the opportunity to attend a basic robotics course after completing the natural world study with the theme of power. Students will have learned about simple and complex machines, energy and its transfer, calculating the efficiency of machines and work and power. This trip will allow the students to apply their learned information further. After speaking with the staff at Robot City they informed me they often host school groups and cater to addressing specific school objectives.

In this case the specific objectives addresses will be….

Apply scientific principles to design, construct, and test a device that either minimizes or maximizes energy transfer.

Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.

Plan, organize, and implement travel arrangements for attending an off campus study.

Additionally, some basics relating to computer programming will also be helpful to either introduce to or review with the students before they attend.

A student committee will be formed to investigate student interest, sources of funding, and travel arrangements (arranging school bus, securing directions to facility, making lunch reservations, and creating an off campus study posting on google classroom to notify families of the trip preparations and execution). There is no need for permission forms. The families sign a blanket permission form in the beginning of each school year. The student committee will check in with the school principal and me to receive approval upon completion of the above items.

The classes available to middle school students are below.

Microcontroller Level 1

This class will teach you how to setup the software and guide you through several experiments using a variety of electronic components. Microcontroller I runs two and a half hours and is priced at $75 (this price does not include the cost of your kit or the microcontroller itself).

Microcontroller Level 2

In Microcontroller II you will build our in store design, the Dodger, (Duemilanove Object Detection Ground Exploration Robot) using the Arduino from Microcontroller I and learn how to construct its various systems. You will literally build this robot from the various components and write the code needed for the robot to function! This class lasts around three hours and is priced at $105 (this price does not include the cost of your kit or the microcontroller itself).

Assessment will include whether or not students successfully build their machines. Additionally, the student travel committee will fill out a self assessment after serving on a committee. Currently, my school only travels for off campus trips 2 times per year. I can see as early as next year the principal allowing for more travel opportunities. If we are allowed more travel I would like to have all middle school students serve on at least one travel committee per year.

Contact information for Robot City is below.

MON - WED: 12-6 THU-FRI: 12-7 SAT: 10-7 SUN: BY APPT ONLY

3226 N. SHEFFIELD AVE., CHICAGO, IL 60657

CALL 773-281-1008