



# Mars Rover Project 2010 Richardson ISD

**Attention Summer  
Math Camp  
Students!**

RISD and UTD are collaborating to offer the exciting and engaging Mars Rover Project 2010. This free camp will begin after morning classes and RISD provided lunch. Students participating in the morning Summer Math Camps have the opportunity to work in teams to build, program, test and launch a rover in the afternoons. The afternoon session will end at approximately 2:50p.m.

**Dates: June 8<sup>th</sup> – July 2<sup>nd</sup>, 2010**

**Location: Liberty Junior High**

The time to sign up for this wonderful new program is during registration. Below is a short overview of the plans for the Mars Rover Project:

## **Week 1: Building the Rover**

- Introduce robotics: What is a Robot?
- Build the square bot using the Robot kits
- Introduce Gears and gear ratios
- Build a fast robot
- Introduce Mars: the planet's surface and history
- Hold Fast Robot competition and Introduction to Programming



## **Week 2: Programming and Mars**

- Finish beginning programming and start structured programming
- Introduce Robots in Space
- Hold the Can, Can Challenge
- Find a Landing Site - Using NASA data to determine a landing site for your rover
- Design a landing site for your rover
- Begin to build landing site



## **Week 3: Preparing to Go to Mars**

- Finish Building the Landing Site
- Build a rover to navigate and explore the landing site
- Test rovers on landscape
- Incorporate a camera and test reception



## **Week 4: Going to Mars**

- Finalize preparation of rover for mission
- Drop test rover, understand orientation and surface obstacles
- Rehearse landing and rover control
- Execute Launch Day
- Conduct Rover competition exploration on Mars