My name is Mr. Michael Clark, the STEM teacher and Robotics Club sponsor at Southwestern Middle School, in DeLand Florida. Implementing STEM initiatives school wide has been my mission here in Volusia County. Getting students to show up to school and stay in school is a constant battle and drives me to continue to find new and exciting ways to get students to learn with hands-on activities. STEM BMX program I am proposing is an ideal fit for my students: hands-on learning ignites the desire to learn about the science, technology, engineering, and math behind what we are doing. The following experiments and topics we will be learning through this activity 1. Bike assembly and set up 2. Tire pressures 3. Seat positioning and force 4. Off road vs. pavement 5. Pedal, coast and balance 6. Tire tread and resistance 7. Speed, stopping and braking 8. Bike circles and diameter. Students will be sharing out their findings with other students and creating their own experiments that they can test.

School Improvement Plan Alignment:
We will be looking at complex texts and manuals that are real world and students can actually build a product.
Ensure implementation of Instructional Shifts
Evidence of Completion: Survey Report G1. If Southwestern Middle School implements evidence based, standards-aligned instruction at the appropriate level of rigor, then student achievement will increase.
G1.B3 Teacher readiness for instructional shifts

Math Shift Two: Think across grades, and link to major topics within grades
Math Shift Three: Rigor in major topics, conceptual understanding, procedural skill & fluency, & application:
Allow students to speak and write their understanding.
Procedural: knowing the steps
Application: real world applications
Literacy Shift Three: Including content-rich nonfiction

Number of Students Involved Annually: 70-100+

Attachment(s): See attached quote from JC’s Bike Shop
See attached pdf of sample curriculum

Grade/Group: 6th-8th grades

What other funds are available for this request? The original price from www.stemfinity.com was $1,795. So I went after school to a local bicycle shop called JC’s Bikes. I wanted to keep it local so I told Ryan at JC’s about the program I was interested in doing. He thought it was an awesome idea since he sees a lot of students riding to and from our school each day. He said he could do the same equipment for a big discount. $1,260.00 is the all-in tax free quote JC’s sent me (a savings of $535).

Have you applied for them, and what were the results? Large discount from local JC’s Bikes.

What is the goal of your proposal? (Include how this request will contribute to meeting the goals of the School Improvement Plan.)

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How will you accomplish this goal and how will these funds help you reach the goal?
I will have a pre and post test that students will take to demonstrate learning and they will share their findings in the form of a presentation. (Prezi, PowerPoint, or choice of student). We will break down and use parts again for other students to use.