



TISP/EIC Report

1 February 2011

Mike Poggie

John F. Purchase



School Support Plan For 2010 / 2011 School Year:

- In the current support plan for the 2010 / 2011 school year we now have:
 - 9 schools / 44 classes in 2010, September 1 – December 31
 - 11 schools / 69 classes in 2011, January 1 – May 31
 - A total of 2562 students
 - This student count excludes Kid Zone where we only loan the capital equipment
- We are basically fielding a team of 4 – 5 members to a school each and every week until the end of May
- We are already receiving bookings for the next 2011 / 2012 school year
 - October is already fully booked

We Offer Six Ready-To-Run Lesson Plans:

- "Sail Away" – Archimedes Principle, Newton's Laws
- "Working With Watermills" – Mechanical Advantage, Simple Machines
- "All About Electric Motors" – Magnetism, Electromagnetism, Electric Motors
- "Here Comes The Sun" – Electric Circuits, Sources & Loads In Series & Parallel, Solar Cells
- "Rockets!" – Newton's Laws
- "Popsicle Bridges" – Structures In Compression And Tension
- Three of them were new this year:
 - All About Electric Motors
 - This was actually a rework of an existing lesson plan from the beginning of EIC
 - Rockets!
 - Popsicle Bridges

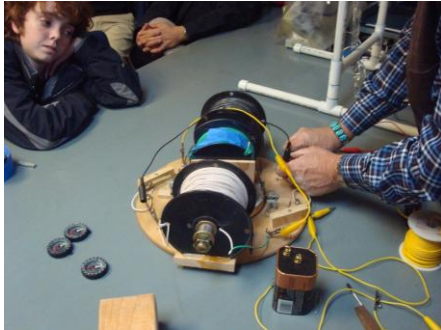
TEACHING ELECTROMAGNETIC THEORY & PRACTICE



DEMONSTRATING ELECTROMAGNETICS



DEMONSTRATING ELECTROMAGNETICS



WINDING THE KIT MOTOR ARMATURE



2/1/2011

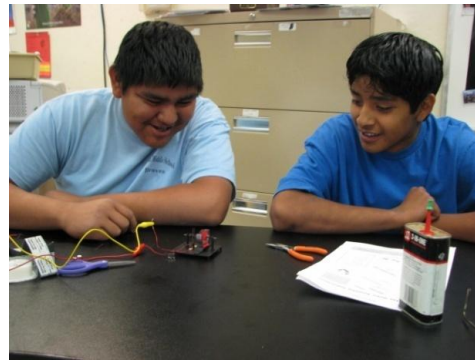
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WORKING OUT WHAT TO DO



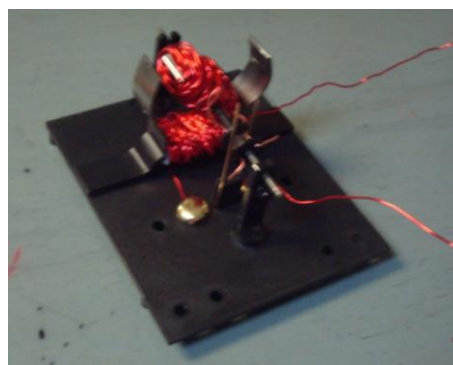
SUCCESS!



THE ENGINEERS HELP OUT



STUDENT'S KIT MOTOR AS BUILT



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TEACHING ROCKET THEORY



DEMO OF CP / CG OFFSET FOR FLIGHT STABILITY



TEACHING THE SIMULATOR OPERATION



THE SCIENCE TEACHER HELPS WITH THE SIMULATOR



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BUILDING



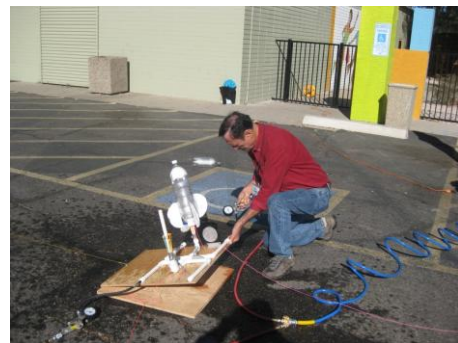
BUILDING



A COMPLETED ROCKET!



LAUNCH!



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We Did A "Classic TISP" In January:

- The Principal of Rover Elementary in Tempe is converting his school to an Arts And Science Academy
- Consequence of pressure from parents unhappy with NCLB
- Started in 2009 and completes in 2011
- Is getting some support from a professor at ASU School of Engineering
- He asked Phoenix TISP to conduct a "classic TISP" session to train 14 of his grade 2 thru' 5 teachers in how to teach STEM
- TISP session was scheduled for Friday, January 7th and Saturday, January 8th
- Led by Mike Poggie with support from
 - John Purchase
 - Dave Leeper
 - Tom Innes
- Lecture followed by two hands-on lesson plans from TryEngineering
 - All About Electric Motors
 - Popsicle Bridges
- After the session the principal, Mark Martinez, told us it had been exactly what he wanted
- The teachers also all expressed their appreciation and enjoyment of the session
- Our equipment and material costs are being covered by IEEE National Office

MIKE P LECTURES ON IEEE & TISP



DAVE L LECTURES AND JOHN P DEMO'S MAGNETISM



JOHN F LECTURES ON TEACHING GRADES 2 – 5



JOHN F LAUNCHES AN AIR ROCKET



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BUILDING TRUSSES



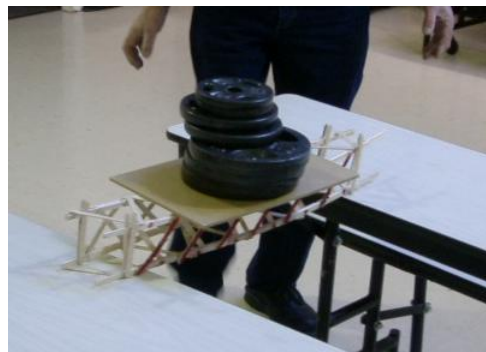
BUILDING A TRUSS STRUCTURE



COMPLETE WITH SPARKLES!



AND IT CARRIES 50 LBS!



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A FINISHED TRUSS BRIDGE, BUT.....OOPS!



A MASSIVE TRUSS THAT CARRIED 75 LBS WITH HARDLY ANY SAG!



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