

FIRST Team 2486 The CocoNuts Present A 2010 Chairman's Epic The Squirrel & the Seven Seeds

We last left the CocoNuts (2486) on the top of Mt. Humphreys' after being enlightened by the Squirrel Guru. Little did they know that another squirrel had been listening to the exchange and had also been inspired by the journey of the CocoNuts. Rocky the Squirrel peaked out from behind the tree where he had been hiding and glimpsed the retreating red-shirted CocoNuts descending the mountain. Suddenly the squirrel had an idea, if the CocoNuts can make a difference, then why couldn't he? Rocky followed the CocoNuts down the mountain back to their home at Coconino High School (CHS). Along the way, he decided he would collect seeds to plant everywhere the CocoNuts went so that he could make a difference in his own way.

Scampering into CHS, Rocky could sense the impact that 2486 had made on their natural habitat in Flagstaff, AZ. He considered the CocoNuts' situation. Their home city of Flagstaff is situated in Coconino County which spans a region larger than the New England area. It is a rural community; hours away from any metropolitan area, meaning most out-of-town outreach events for 2486 are full day trips. CHS is located at the crossroads of this expansive area and because of this, diversity abounds within the school: cultural, financial, & ethnic. Rocky recognized the reputation of CHS was less than stellar in the past.

After the founding of the CocoNuts, small changes began to occur. The CocoNuts' media exposure in print, on the web & on air began to bring positive attention to CHS. The student body took pride in the team and their school. To spread the good word, the CocoNuts presented to the local school board, the Flagstaff City Council, & other professional organizations. The CocoNuts invited all the AZ State Legislators & local school board members to the AZ FRC Regional. The CocoNuts joined the effort to pass a school district budget override out of affection for their school. People in the Flagstaff community began to weave the red, yellow, & black of team 2486 into the community fabric, making 2486 a community team. This enabled the team to meet with STEM Heroes Grant Imahara of "MythBusters" & Apollo Astronaut Alan Bean. Their good intentions began to snowball into significant influences throughout the school and community. (Rocky collected the Seed of Respect.)

Rocky saw that as the CocoNuts became more known, it was easier for them to develop partnerships with businesses, organizations & school groups throughout Northern Arizona (NAZ). He watched as local businesses, such as Bleeker's Boxes, KT Shredding, Peter Piper Pizza, Klean King, & Nackard Beverage partnered with the CocoNuts to enhance the financial circumstances of the CocoNuts. At Flagstaff elementary schools, Rocky observed kids in the after-school FACTS program working with their LEGO robots. Whilst Rocky was touring the area, he happened upon the Coconino County Superintendent, Cecilia Owen. She explained how she had collaborated with the CocoNuts to expand the reach of FLL to home-schooled students. She also pointed out how her office aided in writing a sponsorship proposal that included internships & mentors to WL Gore (a Flagstaff based international engineering firm) which currently provides the team with a programming guru. (Rocky collected the Seed of Cooperation.)

Recalling last year, Rocky surveyed the incredible explosion of growth of FIRST in NAZ. The most noticeable area of growth was FLL in Flagstaff, from 0 Flagstaff teams in 2007 to 29 in 2009. All these teams were mentored by the CocoNuts. Contributing to the growth, the Nuts volunteered at the ASU FLL coaches' workshop and then hosted their own locally. In 2009, the CocoNuts were asked by FIRST to be the AZ Affiliate Partners for FTC and host the State Championship. Rocky dropped his nut in disbelief when told 2486 decided to host this event on the same day as the 2nd annual NAZ FLL Regional at CHS. This joint event was dubbed The High Altitude Robotics Extravaganza (HARE). On Dec 5, Rocky happily scurried into the organized chaos of HARE, flitting past the new FTC practice field (shared w/ CA FTC affiliate), CHS Panther Café, & professional photographer. He spied a dance party & was quick to join with his own squirrely move or two. (Rocky collected the Seed of Growth.)

Rocky saw how the CocoNuts' efforts increased the interest in STEM across Flagstaff. This was evidenced by the doubling of applications to a science & engineering magnet program called the Coconino Institute of Technology. NAU contacted the CocoNuts and asked them to take the place of the USGS Astrogeology Division who originally had taught a college-level course about Mars. Rocky then hopped on the Mountain Line Bus to the NAU campus and watched as 2486 taught robotics to underprivileged, underrepresented students from around AZ. For 3 consecutive weeks during the summer, Rocky watched the CocoNuts teach their own unique curriculum emulating an FLL build season. During this time, Rocky noted that their coaches were spread across the world in various vacation spots. He saw how the kids' perception of their life after high school changed. The CocoNuts seemed to empower the students with their own sense of self worth. With this in mind, the CocoNuts have continued to mentor FLL teams across Flagstaff enthusiastically. The team helped to create and mentor a new FTC team at a rival HS. Rocky recalled how at HARE, a 2nd CocoNut had won the Adult Mentor Award. (Rocky collected the Seed of Motivation.)

As the CocoNuts were engaged in their numerous activities, Rocky saw them come together as a scurry of squirrels. He winced as the CocoNuts lathered aloe on their worst sunburns ever after a memorable camping & knee boarding adventure at Lake Mary. As Rocky tried to nap in the van on the way to ASU for the first ever AZ FTC scrimmage, he noticed the seamless integration of rookie members & veterans. During the scrimmage, Rocky was impressed by the willingness, helpfulness, and energy of the CocoNuts. The appreciation shown by the Valley teams only enhanced the atmosphere of GP displayed during the day. Rocky noticed another component of the CocoNuts camaraderie: team decision making. Everything from the types of meals during build season to participating in a second regional is a collaborative team decision. Once again Rocky was trying to nap in the van down to Prescott for the CocoNuts' invasion of local schools. He was blown away by their ability to inspire nearly 1000 students in one day. (Rocky collected the Seed of Camaraderie.)

Through all of this, Rocky developed a love for red, black, yellow & the loud "GO NUTS!!" He realized the wearing of the team colors was not done out of obligation, but out of the sense of pride that being a member of the CocoNuts incurred. The team is immediately recognizable not only through their trademark red shirts, but through their rambunctious cheering for all teams, recognition tokens & fuzzles for participants & volunteers alike, the cohesiveness of their image, spirited dancing, & unmistakable rhythmic coconut clacking. Nearly as notable as the enthusiasm of the CocoNuts, is the excellence of craftsmanship of their robot & professionalism in the pit display. The outfits worn by the team, the design of the robot, and the mascot all exhibit these traits. Rocky started to display symptoms of the contagious enthusiasm of the CocoNuts. This was highlighted by squirrely episodes of enthusiasm which included other FRC teams joining in the Nut chant and by the rockin' atmosphere created by the 'Nuts at the AZ FLL Championships. (Rocky collected the Seed of Spirit/Pride.)

One day, Rocky walked into the robotics room at CHS. Through with build season, one CocoNut noticed his presence and invited him into the meeting in progress. Rocky marveled at the team's growth in numbers since their journey began. Everyone sat in a circle so that all had an equal presence. The students were sharing how their involvement in FIRST had affected them. For some, it had been therapeutic & social, for others it had helped them develop a positive self identity. The team members, more like family members, were able to share things in this circle of inclusiveness that they were never able to with anyone else. The veterans on the team had even modified their career goals because of their involvement. Rocky was able to feel the trust in the room and saw how FIRST had inspired & influenced the CocoNuts for the better. He was not surprised to hear of the CocoNuts' intentions to spread this inspiration to all of NAZ. (Rocky was given the Seed of Inspiration.)

When it was Rocky's turn to speak, he explained how he had vowed to follow the team in their endeavors after he had heard the exchange with the squirrel guru on the top of Mt. Humphrey's. Along the way, Rocky reflected on what he had learned & on the seeds he had collected. He was amazed at the difference one group of

individuals had made. While pondering everything he learned and the seeds he had collected, he asked the CocoNuts for help planting his seeds. Rocky asked them how he could be included in the future of FIRST in NAZ. The CocoNuts responded enthusiastically advising Rocky to continue planting seeds of Respect, Cooperation, Growth, Motivation, Camaraderie, Spirit/Pride & Inspiration through his actions across NAZ.

The team swept him up in an enthusiastic throng of red, black, & yellow to the site where his seeds would be planted. Working together, the CocoNuts & Rocky made quick work of the planting. As soon as the 7th seed was lovingly placed in the ground and covered, Rocky was teleported through the space-time continuum to the stage in the midst of a celebration honoring the CocoNuts and their achievements. The seeds blossomed into noble trees that continue to spread seeds to inspire people across NAZ to this day.

Executive Summary Questions

Briefly describe the impact of the *FIRST* program on team participants with special emphasis on the 2009/2010 year and the preceding two years

For the past 3 years, the CocoNuts have been & continue to be dedicated to providing a life-changing & inspiring experience for our members through FIRST

- All 3 alumni have gone to college as STEM majors due to FIRST

- Alumni have been awarded over half a million dollars in scholarships

- Because of their FIRST experience, many low-income, minority students continue their education

- Community outreach by the team fosters a life-long desire for the members to continue their community service

Examples of role model characteristics for other teams to emulate

The CocoNuts always epitomize the ideals of FIRST

- Maintain a positive attitude & infectious sense of humor

- Strive to become a positive community asset

- Selflessly help to start & mentor FIRST teams

- Ceaselessly spread the awareness of FIRST & STEM

- Graciously Professional at school, on the field, & when grandma is not looking

- Student members continue to make team decisions

- Opportunities for students to develop real-world skills (public speaking, problem solving)

Describe the impact of the *FIRST* program on your team and community with special emphasis on the 2009/2010 year and the preceding two years

Improving the image of Coconino High School (CHS) throughout the community

- Team members presented to prospective applicants for a STEM magnet school, The Coconino Institute of Technology (CIT)

 - Applications doubled & no student withdrawals

- Hosted the "High Altitude Robotics Extravaganza" (HARE)

 - 2nd annual FLL Regional

 - AZ FTC State Championship

 - Community canned-food drive

- Team size increased 160% from '07 to '10

- Team camaraderie raises self-esteem, empowerment, & expectations

Team's innovative methods to spread the *FIRST* message

The CocoNuts are committed to cultivating awareness of, & appreciation for STEM

New Outreach

- Northern AZ University Summer Enrichment Program

 - Created and taught FLL based curriculum to disadvantaged teens

- Invited AZ legislators to FRC Regional

- Campaigned for district budget override

- Marshall Exploration Stations

- Presented to 1000+ students about FIRST

- Microchip Demo

- FTC Scrimmage

Continuing Outreach

- County Fair

- July 4/CHS Homecoming Parades

- Festival of Science

- Presentations to Professional Organizations

Describe the strength of your partnership with special emphasis on the 2009/2010 year and the preceding two years

The CocoNuts continue to develop partnerships:

CHS

- CIT-recruiting

- Dance line-robot dancer

- Culinary arts-joint fundraiser

- Administration-public recognition

Teambuilding

- Camping

- Movies

- Meals during build season

Businesses

- Southwest Wind-mentoring

- WL Gore & Assoc.-tutoring

- B&T Glass-supplies

- NAU-volunteering/mentoring

- Rodeway Inn-financial support

- Country Host Restaurant-financial support

- County Superintendent-technical writing and student involvement

- City of Flagstaff-mentors & volunteers

Team's communication methods and results

One-on-one workshops to prepare FLL coaches

Well prepared rookies

CocoNuts mentored 21 Flagstaff FLL teams

6 qualified for State

CocoNuts mentored 1 FTC team

2nd place at AZ Championship

Article about receiving Chairman's Award at AZ

Community financial support allowed trip to Atlanta

Positive presentations during school board meetings regarding drastic changes within FUSD

Whole-hearted support

Personal contact with NAU & service groups requesting volunteers for HARE

100+ volunteers

Other matters of interest to the *FIRST* judges, if any

Flagstaff is a rural community 2 hours away from any big cities

Team is composed of students with troubled backgrounds, diverse cultures, & different learning abilities

Won the Chairman's Award as a 2nd year team (last year)

Other Awards Received: Judge's, Website, & FTC Inspire

Consider all opinions and ideas

Can-Do Attitude

The CocoNuts understand the importance of & strive to embody FIRST values & morals

Because of FIRST, members are presented with more opportunities to expand their horizons

2010 Judges Questions:

Team History This is our 3rd year. In our 1st year we won the Inspire Award at the AZ FTC Regional & the Judges Award at the AZ FRC Regional. In our 2nd year we won the AZ Chairman's Award. We continue to grow in number and to inspire kids in Northern AZ (NAZ).

Team Goals Our goals are to continue the expansion of FIRST in NAZ, especially on Native American Reservations by developing qualifying events for FLL. We will continue team growth and foster positive relationships in our district as it faces school closures.

Team's FIRST Impact 2486 hosted the 2nd annual NAZ FLL Regional, the AZ FTC Championship, & the 1st ever AZ FTC Scrimmage as part of the High Altitude Robotics Extravaganza (HARE). We mentored 26 FLL teams & an FTC team. We'll present in Prescott for over 1000 K-8 students.

Community Description 2486 is the force behind the initiative to get students excited about STEM in our small, rural community of Flagstaff. Our diverse community centers on the university, schools & small businesses. We are seen as respected community role models.

Team Strengths Our team strengths are diversity, inclusiveness, quality craftsmanship, work ethic, pride, gracious professionalism, a big dose of humor, & a sense of family! We take the initiative to organize community events to spread our FIRST and STEM enthusiasm.

Most Significant Challenge Overcome This year's major challenge was hosting HARE with 2 events on the same day, & staying close with new teams, considering FIRST's growth in NAZ. Our efforts paid off: the positive comments we received indicate a foundation for future growth of FIRST in AZ.

Robot and Game Strategy Simplicity & flexibility is our motto for this year's game. We designed our robot to kick from all areas of the field, block, maneuver using our omni-directional wheels, elevate our robot, & minimize our height & width for maximum versatility.

Most Competitive for Which Awards Winning the award is not as important as the journey. 2486 is a Chairman's Team because of our extensive outreach efforts & our dedication to FIRST. We are also competitive for the Engineering Inspiration, GP, Team Spirit, Imagery, & Website Awards.

Funding Sources We have partnered with both large & small businesses in our community. However, most of our financial support has come from the Flagstaff community through donations & public school tax credits. We also received a Stardust Foundation grant for 2010.

Public Awareness We continue to be featured in local media & the CHS newsletter. Our website utilizes new media. We are involved in local science festivals, CHS & other school events, parades, & workshops. Those in NAZ who know of FIRST, know because of our efforts.