LEGO “We Do” Robotics Teacher Professional Development Opportunity

Coastal Bend College
Customized & Continuing Education Division
Originally submitted a Coastal Bend Tech Prep Grant Application in February 2011 with intent to use for CBC Kids College in June 2011.

Instead, CBC contracted with All About Learning (AAL), a company specializing in providing materials, supplies, and curriculum content for afterschool or summer enrichment camps.

- AAL classes utilized Science, Technology, Engineering, and Mathematics (STEM) concepts and 21st century educational skills of critical thinking, problem solving, collaboration, curiosity and imagination.
“Going Green” Theme with focus on recycling, green energy, alternative energy, environmentalism, engineering and creative, “fun” science.
CBC Kids College 2011 Finale

- The Environmental Show or The Night the Band went Green!
CBC Teacher Professional Development Opportunity with LEGO WeDo Robotics Package

- Requested and received the LEGO Education WeDo Robotics – Getting Started Package for 24 students working in pairs
  - 12 LEGO Education WeDo Robotics Construction sets
  - LEGO Education WeDo Robotics Software and Site License
  - LEGO Education WeDo Robotics Activity Pack
Project Package Details

- **Age Mark:** 7+
- **Ideal grade level:** 2nd – 5th
- **Key Learning Values:**
  - 21st Century educational skills, such as critical thinking, problem solving, collaboration, curiosity and imagination.
    - Designing and making
    - Brainstorm to find creative alternative solutions
    - Learn to communicate, share ideas and work together
- The WeDo Construction Set enables students to build and program simple LEGO models that are plugged into a computer. The set contains more than 150 elements, including a motor, motion and tilt sensors, and the LEGO USB Hub. Combine with the Software and Activity Pack to carry out 12 theme-based activities.
Learning Targets

Science
- Working with simple machines, gears, levers, and pulleys
- Transmission of motion

Technology
- Programming
- Using software media
- Designing and creating a working model

Mathematics
- Measuring time and distance
- Adding, subtracting, multiplying, dividing, estimating and randomness
- Using variables

Language and Literacy
- Narrative and journalistic writing
- Storytelling, explaining, interviewing, and interpreting
Teacher Professional Development

- **LEGO Education Academy**
  - The LEGO® Education Academy offers professional development programs to ensure teachers get the most out of their investment in LEGO Education resources.
  - All Academy facilitators are experienced classroom users of LEGO Education products and have completed an intensive training course where only the best receive official certification by LEGO Education.
  - Academy workshops are also designed to enable teachers to better facilitate, rather than direct, student learning, thereby encouraging students to take a more active role in the learning process.
  - Minimum of 10, maximum 20.
  - Will be searching for grant opportunities to supplement tuition costs for teachers and other costs.
  - Registration may be competition based, or on recommendation of school administration.
Teacher Development Workshops

- LEGO WeDo Robotics Workshop at VCSU
- WeDo Lego Workshop at Holy Comforter Episcopal School
- Classroom antics – LEGO Education
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THANK YOU!