Crosswell Elementary
STEM Action Plan
Big Ideas

- The school will embody these concepts and learn how to be “STEM minded” by using 21st Century Skills.
- **S**-synthesizing, social skills
- **T**-thinking creatively and critically, team building, “thinking outside the box”
- **E**-excitement to learn, go the extra mile, engaged energy, enlightenment, effective evaluators
- **M**-Multicultural activities, mastery of content
Goals and Objectives

- Increase teachers’ self-awareness of their own 21st century skills
- Increase students’ self-awareness of their own 21st century skills
Timeline

- 2013-2014: STEM Lab and STEM Club begin
- 1st Year: Continue 2nd and 5th grade-wide STEM projects (Sailboat & Jet Toy Challenge); Generate ideas with teachers and explore trial runs of grade-wide design challenges with 3rd and 4th grade
- 2nd Year: Continue grade-wide challenges with 2nd and 5th grade; Implement grade-wide design challenge for 3rd and 4th grade; Generate design with teachers and explore trial runs of grade-wide design challenges with K and 1st grade
- 3rd Year: All grade levels participate in a grade-wide design challenge
Assessments

- Journals
- Rubrics
- Peer Evaluations
- Self-evaluation/survey of 21st century skills for teachers and students
- PLC-collaboration teacher time
- Teacher personal reflections/rubric
- Looking for students/teachers using vocabulary to describe themselves as learners
- Multiple intelligence tests for students and teachers
- Myers-Briggs
Resources

- Computer Lab Specialist
- STEM Lab Teacher
- Exploration experience materials for teacher
  - Pipe cleaner building activity
  - A Hat for Ivan activity
- Wordle Posters for school display of 21st Century Skills/STEM
- Professional Development time for staff
Classroom Preparation

- Organization of materials and space
- Developing actual STEM Lab and supply area
- Creating a sign in/out process for teachers to borrow materials
- Asking and reaching out to companies for materials
- Tearing apart science lab kits
- Research time to develop design projects
Learning Experiences

- Pipe cleaner/ building the tallest structure
- Hat for Ivan... adapting it for our school theme “Nothing Could be Finer then Learning in Carolina”
- Continue-2\textsuperscript{nd} Sailboat and 5\textsuperscript{th} Toy Jet
Example

- A Hat for Ivan AKA A Hat for South Carolina