Liberty Elementary School STEM Action Plan  by: Becky Noblitt and Dawn Miller

Big Ideas

To integrate S.T.E.M. into the curriculum at Liberty Elementary the S.T.E.M. proposes the following BIG IDEAS!!

1. The teachers will become more aware of local industry.  
The teacher will become more aware of curriculum components related to real-world experiences.  
The teacher will facilitate curriculum to include invention, innovation, and inquiry (I cubed)

2. The students will become more aware of local industry.  
The students will begin to:  
   a. Problem-solve  
   b. Think creatively  
   c. Team building  
   d. Questioning  
   e. Reflecting

Timeline

To implement S.T.E.M. at Liberty Elementary a timeline must be set into place. The action plan team proposes the following:

1. Third grade teachers along with some Special Area teachers will participate in a ½ day experience as educators in the workplace. Upon administrator approval, teachers will visit the Industrial Park.  
2. All third grade students will complete a minimum of 1 unit during the school year.

Assessments

To assess achievement, our students will complete a pre and post assessment using authentic documentation such as notes, journals, diagrams, graphs, and pictures. The teachers will also assess using rubrics. Teachers will meet at the end of the year to discuss how the unit was beneficial to both teachers and students. Teachers will keep and share student’s pre and post assessments.

Resources

In order to implement the S.T.E.M. action plan Liberty Elementary will need to use resources from the following areas:

1. Pickens County Commerce Park  
2. Business Partners  
3. Administration at Liberty Elementary  
4. Parents and Friends of Liberty students and faculty  
5. ITEA: Invention, Innovation, and Inquiry  
6. Danny Fahey; School District of Pickens County School-to-Work Facilitator
Learning Experiences

Teacher

Overall: to become more aware of local industry through onsite experience; include invention, innovation, and inquiry into lessons

Specific Goals: include 1 I cubed unit into their curriculum during the school year

Student

Overall: to become more aware of local industry; practice real world job skills through hands-on projects

Specific Goals: students will ask questions, test, and evaluate their specific task

Examples:

Third Grade:

**Toothbrush Holders:** Design a holder for storing their toothbrushes (Lesson p.34). The project must include:

- a. directions for use
- b. buying/gathering materials
- c. construction
- d. share with group
- e. market their product
- f. design advertisements
- g. sales pitch to class

**Commercials:** Create a commercial video message to inform audiences (Lesson p.87). The project must include:

- a. directions
- b. buying/gathering materials
- c. writing script for group
- d. designing props/set
- e. recording/editing video
- f. share

**The Toy Factory:** Develop an understanding of production in large quantity (Lesson p.110). The project must include:

- a. directions
- b. buying/gathering materials
- c. design and assemble product
- d. mass production
- e. write labels and directions for use
- f. packaging