1. Big Idea:
   • Problems have solutions

2. Goals & Objectives:
   • Goal: The students will demonstrate an understanding of the technological design process including mathematical thinking, controlled investigative design, analysis and problem solving to develop solutions to real world problems.
   • Objective: 6-1.4 Use a technological design process to plan and produce a solution to a problem or a product including identifying a problem, designing a solution or a product, implementing the design, and evaluation the solution or the product.

3. Timeline:
   • During the school year the after school - science club members will complete a number of different design projects in preparation for Science Olympiads
   • Design projects would be included in the after-school program.
   • At the end of the year the whole school will participate in a technological design project.
   • 2011/2012 School year (if student numbers allow) STEM course would be offered as an elective 2- 48 minutes periods a week to 7th and 8th grade students.

4. Assessments:
   • Projects (with rubric which includes an Engineering journal)

5. Resources:
   • www.tryengineering.org
   • Engineering by Design
   • Models for Introducing Technology

6. Learning Experiences:
   • Science Olympiads competition
   • Research current oil spill, and past local oil spills (Greenville - Reedy river 1996).
   • Science teachers incorporate the design process into the regular science curriculum
   • Guest speakers from DHEC
   • End of the year project: Oil Spill Solutions
7. Example:

- Oil Spill Solutions – the students design a method for containing the oil spill and then to remove it using everyday materials. Student teams will describe their plan in writing and with a drawing and then present their plan to the class.