



SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS CLUSTER

LESSON 6

Lesson Plan Title: Engineers to the Rescue: Blennerhasset Flood		Instructor:
Suggested Total Time for Lesson (minutes): 45-65 minutes (1-2 day)		
Content Focus - What Will Students Learn? (Content Skill Sets)		
0972.ST.2461.7 Identify principles of the problem-solving process 0972.ST.2461.8 Outline the steps in the design process 0972.ST.2461.10 Analyze Solutions, identifying strengths and weaknesses 0972.ST.2461.11 Develop Details of a Solution 0972.ST.2461.12 Develop, test, and redesign prototypes 0972.ST.2461.28 Make an oral presentation 0972.ST.2461.31 Contribute to a team project 0972.ST.2461.8 Solve problems using appropriate units in engineering systems		
Materials and Resources- What do you need to assemble and prepare before the lesson?		
Materials: <ul style="list-style-type: none"> • 3 Tongue Depressors • 24 inches of string • 5 rubber bands • 1 fork • 1 spoon • 12 inches of tape • 12 pipe cleaners • 1 hula hoop • 1 solo cup • Scissors (cannot be in design) 		Resources: <ul style="list-style-type: none"> • Activity Engineers to the Rescue • Decision Matrix Template/Automated Template • Design Brief • Digital Notebook
Lesson Outline: What learning activities will your students do?		
Time	Sequence/Description of Learning Activity	
10-15 minutes	Get Started/Explain: Students will be introduced to the Flood Challenge at Blennerhasset Island	
30-35 minutes	Discover/Engage/Practice: Students will form groups or teacher may assign groups of 3-4 Students will work within these design teams to create a method for transporting visitors of the mansion to safety	
10-15 minutes	Check for Understanding/Summarize/Close: Students will explain the challenges of working within Teams Students will elaborate on why it is important to clearly define design constraints prior to creating a product Students will explain how they came about deciding on their designs	
Modifications, Support, and Extensions (for those students with IEP)		
Reflection- Did the students learn the content outlined in the lesson focus? Why or why not?		