TRANSPORTATION, DISTRIBUTION AND LOGISTICS CLUSTER

LESSON 4

Lesson Plan Title: Designing a Rubber Band-Powered Car	***Instructor:***

Suggested Total Time for Lesson (minutes): 135 minutes (3 days)

Content Focus - What Will Students Learn? (Content Skill Sets)

The students will individually design and build a car which is powered by no more than two (2) rubber bands. The car should be able to travel at least 6 feet. Your car must be well constructed and able to travel the distance multiple times. (Culminating Event for Transportation, Distribution and Logistics - Power and Energy Rubber Band Car Project)

0976.TR.1620 Automotive Technology
0976.TR.1670 Collision Repair Technology
0976.TR.1740 Diesel Equipment Technology
0976.TR.1960 Power Equipment Systems

Materials and Resources- What do you need to assemble and prepare before the lesson?

Materials:
- Grid Paper
- Copies of Handouts
- Hot Glue Gun
- Straws
- Rubber Bands
- Plastic Bottle Tops
- Wooden (dowel pins) Axles
- Plastic bottle

Resources:
- *power and energy rubber band car project - Bing images*
- *DIY RUBBER BAND POWERED TOY CAR! Coca Cola bottle! Super EASY and FUN! - Bing video*

Lesson Outline: What learning activities will your students do?

Time	***Sequence/Description of Learning Activity***
15 minutes	***Get Started/Explain:*** • Students will make a self-propelled car using materials provided by the teacher that will travel at least 18 feet. • Watch videos on design ideas for self-propelled cars.
30 minutes 45 minutes	***Discover/Engage/Practice:*** • Students will use materials provided by the teacher or they can bring items from home to design a car that looks good and meets the requirements. • Looks count, so make the vehicle attractive. • Cars must have at least 3 wheels and move without being pushed. • All cars meeting the specifications will compete to determine which car can travel 6 feet in the shortest time.
45 minutes	***Check for Understanding/Summarize/Close:*** • The car is constructed to meet design specifications. • The car is eligible to race. • The car can travel a minimum distance of 6 feet. • The car can reach the destination in the shortest amount of time

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?