FLATE MADE IN FLORIDA	**Introduction** **TROPICANA** **Container Design** **Teacher Lesson Overview**	
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The Scenario

Manufacturing companies transform ideas and raw materials into valuable products. Tropicana, for example, transforms acres of orange trees into thousands of gallons fresh orange juice. Once processed and placed in 250,000 gallon tanks, the juice needs to be poured into individual containers, boxed, shipped and displayed in your grocery store before you take it home and enjoy a glass of Florida orange juice. Industries like Tropicana are always looking for new ideas to present their products to different consumers groups. For this reason, you have been hired by Tropicana to propose and design a new container and label for a consumer group of your choice. The challenge may be accomplished individually, in teams or as a class project.

Objectives:

The purposes of these activities are to present learners with scenario or problem-based learning experience in the form of scaled-down versions of real-life industry challenges which will engage their imaginations, and stimulate their interest in pursuing careers in modern manufacturing.

Approach:

Students will be introduced to real industries and some of the manufacturing-related challenges they face in day –to-day operations. They will be provided with goals, data and constraints and asked to generate novel solutions to the challenges.

Levels: T

here are three Tropicana Learning Challenges with increasing complexity at each level.

Level I – The Container – Students provide the design specifications for the design of a new container. They must take into consideration the specifications of the filling stations, supermarket shelf dimensions, and maximum employee safe load-bearing requirements.

Level 2 – The Shipping Box - Students provide the design specifications for the design of a new shipping box. They must take into consideration dimension of new containers that were designed in the previous level and the measurement and ultimate content of a shipping pallet.

Level 3 – Train Car Logistics - Students determine the number of individual containers, boxes, and pallets to be loaded onto each the train car that will distribute the newly designed containers and cases by rail to all distribution centers in the continental US.