

## **AIMS MINI-GRANT APPLICATION**

Charleston Middle School  
Red Team  
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Charleston, IL 61920

Lead Teacher: Bonnie Zavoral

### **Amusement Parks across the Curriculum**

Students on our team have designed and constructed roller coasters as a culminating project for their study of force and motion for many years. We have decided to expand this project into an interdisciplinary unit where students design an amusement park.

Preliminary lessons will be conducted in various classes. Reading classes will read articles from Thrill Ride by Russell G. Wright. Social Studies classes will analyze amusement park locations using atlases and a list of the top amusement parks in the U.S.A. At the same time, students will study statistics in math classes and analyze the probability of winning various carnival games. Concurrently, science students will be studying forces and motion as a foundation for designing and analyzing roller coasters.

Students will be divided into five major groups and then into subgroups comprised of 6-7 students. Each major group will select an amusement park theme. Then, each subgroup will design an amusement park based on that theme. Each student will be responsible for planning three components of the amusement park within the following categories: land rides, water rides, shows, games, restaurants, and characters. A written description will be required for each component in the form of a brochure, sign, menu, show script, etc.

The entire subgroup will create a three-dimensional map of their amusement park. In addition to the required components designed by each member, the group must include extra park features: gift shops, photo booths, restrooms, first aide/security station, specialty shops, and landscaping. The group is also responsible for creating one of the carnival games and deciding on the location of their park.

The students will present their amusement park to the rest of their theme park group. All of the parks will be displayed. Our kindergarten buddies will be invited to our school to view the theme parks and play the carnival games. Then students will design and build their roller coasters. After the coasters are constructed, we will host an open house for family and community members. The final component of this unit will be students selling their roller coaster design to a mock amusement park board comprised of parents and community members.

### **Duration of the project:**

The unit from start to finish will last approximately four weeks. However, that time is not completely dedicated to the unit. Preliminary activities in reading and social studies classes will last 1-2 class periods. The math unit will last approximately two weeks. Language arts classes will use 4-5 days for the writing component of the project. After studying forces and motion, 3-4 weeks of science class will be devoted to the roller coaster aspect of the unit. On the two days before Thanksgiving break, core class time will be dedicated to constructing the 3-D maps, carnival game construction, and publishing the writing components. After the two dedicated days, language arts classes will spend approximately two days listening to theme park presentations and one buddy visit will be used for our kindergarten buddies to play the carnival games. About two weeks later, two more core class days will be dedicated to roller coaster construction. After the construction, science classes will work on and present the persuasive Power Point presentations for the amusement park board. This project will commence in mid-November and reach its completion in mid-late December.

### **Intended Benefits and Needs:**

Students will transfer what they are learning in school to a real-world situation. Applying their knowledge to something they enjoy, an amusement park, will be more authentic and enjoyable than traditional lessons. Through this project the students will address the following state goals:

Math: 6A3, 6D3 and 10  
Reading: 1, 3C, 4B, and 5  
Social Studies: 15a, 15B, 17A3b, and 17C3a  
Science: 11B, 12D, and 13B  
Fine Arts: 26B3d and 27A3a  
District technology goals

### **Budget Explanation:**

\$125.00	Additional copies of Thrill Ride
\$100.00	Craft supplies for the 3-D maps and carnival games: poster board, pipe cleaners, pom-poms, craft foam, glue, etc.
\$80.00	Carnival game prizes:
\$45.00	Mini Plush bean bag Animal Assortment
\$35.00	Novelty Assortment

### **Project Monitoring and Evaluation:**

Students will have individual assignments for their preliminary activities assessed in each class. During the project, students will receive participation grades. The 3-D maps will be assessed with their presentations using a rubric. The written components will be graded using the 6+1 Writing Traits rubric. The roller coasters and presentations will be assessed with another set of rubrics. The over-all success of the unit will be determined by student enthusiasm, on-task behavior, attendance during the unit, and the quality of end products.