

A photograph of a roller coaster car on a track. The car is dark-colored with orange seats and is positioned on a blue track. The background shows green trees and a clear sky. The foreground is a ground covered in a dense pattern of pink and purple flowers. The text "Amusement Park of the Future" is overlaid in the center of the image.

Amusement Park of the Future

Amusement Park of the Future

AAAS Benchmarks Addressed: Including, but not limited to the following:

- 2. The Nature of Mathematics
 - A. Patterns and Relationships
 - B. Mathematics, Science and Technology
- 8. The Designed World
 - D. Communication
- 11. Common Themes
 - B. Models
 - D. Scale
- 12. Habits of the Mind
 - D. Communication Skills

National Science Education Standards Addressed: Including, but not limited to the following:

- Science as Inquiry, Content Standard A
- Physical Science, Content Standard B.

Note: Although not addressing many of the science standards directly, cross-curricular activities indirectly apply to many other standards and are encouraged by both AAAS and NSTA.

Objectives:

- SWBAT research via the Internet various characteristics of amusement park rides.
- SWBAT make predictions and calculations about their designed futuristic rides.
- SWBAT create a scaled sketch of 3 of the rides in their amusement park and make appropriate calculations describing the riders motions on these rides.
- SWBAT describe in writing the difference between the futuristic park and the ones of today.

Prior Knowledge:

- Students have visited a park either in person or virtually.
- Students have a basic understanding of the physics involved in the rides. (see pre and field trip lessons)
- Students have an knowledge of using the Internet to find information

Materials:

- Internet, pencil and paper

Lesson:

1. Ask the students what they like best about the amusement park. Have a discussion about their idea about a future park.
2. Have the students look up future amusement parks sites on the world wide web. Some sites to consider are <http://www.fortress-of-solitude.net/superworld/> and <http://www.unlv.edu/Tourism/amuse.html>.
3. Have the students design an amusement park of the future. It should include a discussion of the physics of three of the rides as well as scaled sketches of each of these. They may describe the rest of the park with picture and/or words. The assignment should include
 - a. three complete descriptions of rides, including analysis of the physics,
 - b. drawing and/or verbal description of the rest of the park
4. Have the students present their plan to the class and come up with a classroom amusement park which may include models, drawing, etc. depending on your time and inspiration.