

Design a Theme Park Project

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Course Context

Tuskawilla is a middle school located in Oviedo, Florida, part of the Seminole County Public School district. The “Design a Theme Park” project is part of Tuskawilla Middle School’s “Explore. Create. Innovate.” (ECI) career exploration and preparation program of emphasis. This initiative helps students to identify career paths by using the design thinking process. Middle school is an ideal time to spark an interest or a passion, leading to purposeful course selection earlier in a student’s academic career. Students are encouraged to investigate a variety of careers which become more focused as they move through the Explore, Create, and Innovate courses. Elements of design thinking are emphasized especially at the higher-level Innovate course.

Entering 6th grade, students take diagnostic exams that highlight personal strengths and weaknesses, which can then be compared to the various career path options throughout the semester. During the 6th grade Explore class, students are introduced to a large variety of traditional and nontraditional career options that are categorized and organized into chapters. These chapters are purposefully organized into four career paths: Design, Medical, Service, and Technical. The 7th grade Create courses again focus on these four career areas but allow students to choose a focus on one of these paths. In these courses, students learn the skills and practices required to succeed in that potential career. The 8th grade Innovate capstone course infuses design thinking principles with business applications and emphasizes entrepreneurship. The culminating project allows students to identify a problem in their career/industry path and to address it using the design thinking process. Students are expected to conduct market research, prototype solutions, and promote a finished product or idea.

Project Purpose

Once students have been exposed to the various career options in their 6th grade Explore class, a final project is used to introduce them to the concepts and applications that will be used in the Create and Innovate courses. Several factors led to the decision to use a theme park as a basis for this project. First, students in this area have exposure to the greater Orlando theme park industry, being located 30 miles north of the parks. Second, the themed entertainment industry is the largest source of employment for the region. Third and perhaps most significant is that the theme park industry offers career paths in nearly every conceivable discipline and encompasses most of our career focuses. Ultimately, the creativity and fun associated with theme parks drive student interest while also drawing their attention to a possible future career path.

During this multi-week final project, students are challenged to conduct research, perform a cost/benefit analysis, work with others that may have differing idea and opinions, fulfill a career role within theme park design (project manager, record keeper, designer, or art/media expert), and ultimately deliver a “model” theme park that functions within the scope and constraints of the project. Each team of students works on a “land” filled with unique themes, attractions, and designs. Once all lands are complete, the park is placed together like a jigsaw puzzle.

Project Steps

Design Thinking Application	Teacher Preparation	Student Tasks	Learning Outcomes
<p><i>Empathize</i></p> <p>“Understand” how theme parks relate to various careers</p>	<p>Media presentation on interesting theme parks (hook)</p> <p>Introduction cost/benefit worksheet for reward</p>	<p>Build student interest in project</p> <p>Complete c/b analysis - winning team receives \$\$\$ prize toward project budget</p>	<p>Relate explored careers to the themed entertainment industry</p> <p>Attain required industry knowledge to complete project</p> <p>Demonstrate ability to understand consequences of business decisions</p>
<p><i>Define</i></p> <p>“Research” theme park roles, designs, and finances</p>	<p>Media presentation on theme park design ideas and sketches (hook)</p> <p>Team roles worksheet/presentation</p>	<p>Sketch a basic theme park map</p> <p>Decide team roles based on areas of interest</p>	<p>Provide spatial and aesthetic decisions for park design</p> <p>Assess strengths, weaknesses, and opportunities for contributions</p>
<p><i>Ideate</i></p> <p>“Brainstorm” ideas for look and feel of park areas</p>	<p>Attraction selection presentation w/ costs and balance sheets</p>	<p>Students select attractions based on design of land and availability of funds</p>	<p>Demonstrate decision making skills based on the constraints of their own design ideas and the cost of procuring attractions</p>
<p><i>Prototype</i></p> <p>“Analyze” the decisions of other teams in order to keep ideas unique throughout the class park</p>	<p>Task students with creating a presentation on their land, complete with attractions, food & beverage, and retail stores</p> <p>Conduct market research and gather feedback</p>	<p>Students create a PowerPoint showcasing their land</p> <p>Other teams critique the offerings and offer suggestions for improvements</p>	<p>Students refine presentation skills both with software and their live presentation to the class</p> <p>Students collaborate with other teams and offer feedback</p>
<p><i>Test</i></p> <p>“Build” a model of each theme park land and deliver a finished product</p>	<p>Provide workspace and supplies, offer suggestions for construction</p>	<p>Each member of the team contributes to completing a scale model of the land</p>	<p>Students learn to collaborate and to utilize limited resources to their fullest</p>


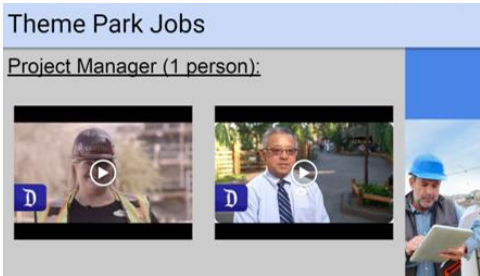
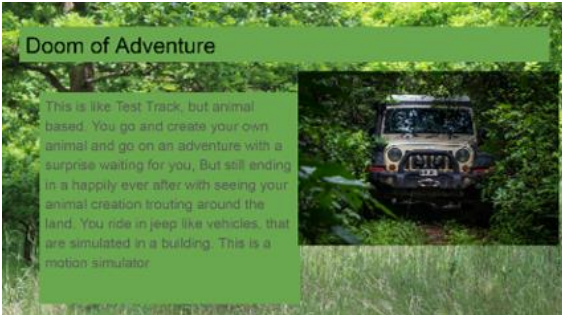

Challenges

While students are mostly eager to contribute to this project, several students in each class either have not visited a theme park, or just do not like theme parks. While delivering media presentations about the park provides a context for them to work within, they do not seem as eager or willing to contribute compared to their peers who are more excited about theme parks in general. Another major challenge was deciding the scope of the project. Initially, this project required each group to deliver an entire park using the model above, meaning each team had to tackle budgets, creative differences, and other constraints across many different lands. The amount of time required for the project was simply too long. The projects became more focused and refined when the decision was made to generate a “class park” with each team developing a single land. However, conflicts are much more difficult to resolve when one set of attractions must be used within a single “theme” for a land. It can be a difficult balance letting students be as creative as they want while meeting the demands of the larger project.

Successes

This project has generated a great level of interest and effort. The majority of students remain engaged and excited to tackle challenges throughout the project, despite the lengthy process and required group work. Students learn to contribute their unique ideas to better their land while recognizing business and creative constraints. They also share interests and compare ideas which helps them cope with the disappointments of realizing they must share resources and compromise to deliver a well-balanced project. Students have commented during 7th and 8th grade courses that they wish they could do similar projects in those ECI courses.

Photos

 <p>Student research and design</p>	 <p>Themed entertainment jobs as team positions presentation</p>
 <p>Land presentation</p>	 <p>Completed scale model</p>

Sample Worksheet

Theme Park Project Cost/Benefit Analysis Worksheet

Team Members: _____

Directions: Below is a set of decisions that theme parks often make. They have to decide which choice will benefit them the most. In some cases, the largest investment (most money spent) might not be the wisest choice. In this worksheet, you need to consider the costs (money) and benefits (visitors) to make sure you are making the best decision. The teams with the most visitors while remaining under budget will receive a bonus during the theme park project. When you decide which choice to make, circle the choice, then write the cost and visitors of your decisions in the boxes beside the choices. You will add these numbers at the end, but remember: **THE OBJECT OF THIS ASSIGNMENT IS NOT TO ATTRACT THE MOST VISITORS. IT IS TO ATTRACT THE MOST WHILE STAYING WITHIN BUDGET OF \$15,000.**

Problem	Choice #1	Choice #2	Cost	Visitors
You need a location to build your park. You must consider two choices. The first choice is located inside a big city, which means lots of people will visit but the land is very expensive. The second choice is located outside the city, where not as many people may live near but is far cheaper land.	In City Cost/Visitors: \$2,000 / 5,000	Outside City Cost/Visitors: \$1,000 / 2,000		
You need a theme for your park. There are two main ways to decide a theme for the park. One way is to use a name brand, like Disney or Epic Games. This is popular with visitors but is expensive. Another option is to make your own. This costs less but will not get people as interested.	Name Brand Cost/Visitors: \$4,000 / 4,000	Create One Cost/Visitors: \$1,000 / 2,000		
Your theme park needs a major roller coaster. The tallest and fastest roller coasters often make headlines and attract lots of visitors. However, they are extremely expensive! If you select not to build the tallest and fastest coaster, people might not care about it as much.	Tallest/Fastest Cost/Visitors: \$5,000 / 6,000	Small Coaster Cost/Visitors: \$2,000 / 2,000		
Your theme park needs food. Theme park food is often awful. This is why many parks have chains like Starbucks and McDonald's sell their food there. This costs the park more money because they have to let the big food companies make money too. Still, people often prefer name brand food.	Brand Food Cost/Visitors: \$2,000 / 2,000	Park Food Cost/Visitors: \$1,000 / 500		
Your theme park needs a big thrill ride. The location of your park is in an area that gets quite hot. Your visitors want a water ride, but they are very expensive. You have the option to build a big water thrill ride, or you can build a large thrill ride without water that might not be as popular.	Water Ride Cost/Visitors: \$3,000 / 4,000	Thrill Ride Cost/Visitors: \$2,000 / 2,000		
Your theme park needs something to attract families. While a big family ride will attract plenty of families, it will be a large expense. Many parks instead offer shows to keep families happy and interested, but this may not draw as many visitors as a new ride.	Family Ride Cost/Visitors: \$3,000 / 1,000	Family Show Cost/Visitors: \$1,000 / 500		
Your theme park needs another ride and you notice that teenagers are bored. You can build a super thrill ride for teenagers, but it will be expensive. A less thrilling ride will be cheaper but may not satisfy thrill seeking teenagers.	Super Thrill Ride Cost/Visitors: \$3,000 / 3,000	Small Thrill Ride Cost/Visitors: \$1,000 / 2,000		
TOTAL (COST MUST BE NO MORE THAN \$15,000) :				

Joshua Baker is a middle school teacher in social studies subjects, computer coding, and career exploration courses. His Bachelor of Arts in History is from the University of Central Florida. He has a background in theme park operations, information technology, and photography.