Pre-Algebra PBL

Get ready to bring math to life! This year, our class is embarking on an epic year-long adventure where students become lead designers of their very own Theme Park. This Project-Based Learning (PBL) experience is designed to foster a genuine love for learning by showing students exactly how math functions in the real world. Students will have "voice and choice" to design a park based on their own hobbies—whether it's a sports park, a water park, or an amusement park—and will work to create five rides and two restaurants or gift shops. Throughout the year, students will research successful parks, collaborate in teams to solve engineering challenges, and even replace traditional homework with project-based tasks that incorporate key classroom concepts. We will seamlessly integrate advanced Pre-Algebra concepts into the park's development to ensure every student develops essential success skills like critical thinking and communication

- **Linear Relationships and Functions:** Students will use **slope** to analyze visitor attendance trends and write equations to predict whether their park is gaining or losing visitors over time.
- **The Geometry of Circles:** Designing circular rides, like carousels or Ferris wheels, will require students to calculate **circumference, area**, and the specific **angles** needed for car placement.
- **Multi-Step Equations and Inequalities:** These will be used to manage the park's **physical limits**, such as total acreage and the necessary distance between rides, while balancing a budget for **admission fees**.
- **Data Analysis and Probability:** Students will conduct research to compare successful and unsuccessful parks and calculate the **mathematical odds** for various carnival games to ensure park profitability

This project is about more than just numbers; it's about building **critical thinking, collaboration, and communication skills** that will serve your child for a lifetime. We look forward to seeing their imaginations take flight as they discover that they aren't just students—they are innovators!

By the end of the year, students will showcase their creativity through 3D models, drawings, or digital designs at a spectacular **"Grand Opening"** for family, friends, and the community. We look forward to seeing their imaginations take flight as they discover that they aren't just students—they are innovators!