It's a Wild Ride
Project Calendar

DAY 1 AND 2	DAY 3 AND 4	DAY 5 AND 6
SCIENCE		
• "What I Know about Roller Coaster Stats" • Video-Top 12 Roller Coasters— • Take statistical notes on each roller coaster (Phase 1)	• Start mini-engineer experience-each student builds a maquette (to be used in math as well) (Phase 3)	• Newton's First Law Experiments (Phase 2)
MATH		
• Roller coaster statistics using the database from last year (if first year-just do general Internet search engines) • Graph Match Pre-test (Phase 1)	• Graph Match activity with probeware and using scenarios from a A Visual Approach to Algebra (Follow the Leader) • Statistics mini-assessment (Phase 1)	• Mini-Architect Experience (Phase 3)
LANGUAGE ARTS		
• Sensory writing (personal narrative) activity using collection of roller coaster video clips • Students fill out KWL (Phase 1)	• Students write descriptive free write which may include poems, stories, how to, etc. Students choose. Taken though the writing process—Mini-lesson (Phase 2)	• Rough draft and editing sessions of descriptive writing (Phase 2)
SOCIAL STUDIES		
• Scavenger hunt on the Internet (Phase 1)	• 3-Dimensional time-line from 1600-1877 • Students jig-saw (Phase 2)	• Students complete a walkabout of all the time-lines answering key questions about each time period (Phase 2)

DAY 7 AND 8	DAY 9 AND 10	DAY 11 AND 12
SCIENCE		
• Finish mini-engineering experience • Review Newton's First Law (Phase 3)	• Assign at-home roller coaster project • Look at last years' projects using rubric • Show examples of different materials (Phase 4)	• Newton's 2nd Law (Phase 2)
MATH		
• More graph matching scenarios • Exploring Slope • Perspective and 3D Representations (Phase 2)	• Investigation of Linear Equations: The Wave (Phase 2)	• Investigations of Linear Equations: Bouncing Balls (Phase 2)

LANGUAGE ARTS		
• Students finish descriptive writing • Share writings (Phase 2)	• Technical reading activity using SQ3R strategy (technical reading consists of several articles from magazines) (Phase 2)	• Finish technical reading assignments (Phase 2)
SOCIAL STUDIES		
• Introduce concept of databases by showing Internet databases • Students begin creating their own database on roller coasters evaluating and classifying sites into these categories: design, statistics, safety, and history (Phase 2)	• Database sheets (Access documents) finished by end of the block. Teacher merges documents to complete a final class database on roller coasters. (Phase 2)	• In partners, students construct an Internet scavenger hunt for other partners to complete using the new class database on roller coasters (Phase 2)

DAY 13 AND 14	DAY 15 AND 16	DAY 17 AND 18
SCIENCE		
• Newton's 3rd Law Activities (Phase 2)	• Activities on velocity, acceleration, momentum, and gravity • Students rotate through learning stations (Phase 2)	• Albertson's computer lab to create Inspiration diagrams on Newton's Laws (Assessment)
MATH		
• Assessment -Graph match -Linear Equations (Assessment)	• Create "top-tab book" • Distance and acceleration worksheet using graphic organizer ("top-tab book") (Phase 2)	• Force and motion worksheet using graphic organizer ("top-tab book") (Phase 2)
LANGUAGE ARTS		
• Persuasive writing via business letters. (Phase 3)	• Finish persuasive writing (Phase 3)	• Put roller coaster writing portfolio together which includes student's reflective thoughts on their writings (Assessment)
SOCIAL STUDIES		
• Exchange and complete scavenger hunts (Phase 2)	• Create 3-dimensional time-line on the history of recreation and leisure in the United States. students form 6 different groups and begin researching their assigned period of history (Phase 3)	• Compare and Contrast Activity using the two time-lines • Student complete a walkabout of all the time-lines answering key questions about each time period (Phase 3)

Day 19 AND 20	Day 21 AND 22	Day 23 AND 24
SCIENCE		
• Activities on force and motion as they pertain to roller coasters --Give it a Whirl --Roller Derby --The Swing of Things --So Nice of You to Drop In • Students Jig Saw (Phase 3)	• Testing Designs with On-line simulations • Review for test (Phase 3)	• Science Assessment-traditional multiple choice (Assessment)
MATH		
• Assessment using formulas • Effects of Slope as it applies to RC (Assessment) (Phase 3)	• Stations Lab Intro: Using photogates to analyze acceleration on the K'nex roller coaster model looking at the slide and loop specifically (Phase 3)	• Stations Lab Continued: A. Investigations with foam tubes stations B. Slide station C. Loop station D. Spiral station (Phase 3)
LANGUAGE ARTS		
• Share portfolios—students read each other's work and fill out commentaries — strictly positive (Assessment)	• Career jig-saw activity—students read articles about different careers involved in amusement parks using the jig-saw cooperative strategy (Phase 3)	• Four corners activity in which students form their roller coaster groups for the split days and assign job roles of engineer, architect, public relations, or researcher (Phase 3)
SOCIAL STUDIES		
• Decide on a thesis for research using time-lines (Phase 3)	• Research for research using Internet and database (Phase 3)	• Write rough draft in any form (book, magazine, regular paper, PowerPoint, etc.) (Phase 3)

DAY 25 AND 26	DAY 27 AND 28	DAY 29 AND 30
SCIENCE		
• At-home roller coaster project due. Students perform test on their design and are evaluated by math science teacher (rollers coasters are split between the two rooms) • Class data charts are filled out on top speed, average speed, angle, distance, and time	<u>Roller coaster splits: Engineer</u> A. Segment track using twist ties B. Establish scale based on height of first drop C. Calculate for force, acceleration, momentum, kinetic and potential energy of certain segments D. Research and write technical report (Phase 5)	Assign *Create a Test*

MATH

• At-home roller coaster project due. Students perform test on their design and are evaluated by math science teacher (rollers coasters are split between the two rooms) • Class data charts are filled out on top speed, average speed, angle, distance, and time	Roller coaster splits: Architect A. Continuous side view with calculations for speed, distance, and time of each segment B. Top view C. Artistic rendition D. Car design with engineer *does not need to be sequential (Phase 5)	

LANGUAGE ARTS

• Group planning time—Hand out red books and complete planning sheet from red book	Roller coaster splits: Public Relations A. Design PowerPoint background and layout B. Brainstorm with the other PR directors C. Develop story board D. Meet with researcher, architect, and engineer E. Develop presentation script (Phase 5)	• Group planning time—prepare final presentation

SOCIAL STUDIES

• Turn in Final Draft of Thesis • Informal test on databases and research practices in general (Phase 3)	Roller coaster splits—Researcher A. Complete planning sheet for magazine cover and topic B. Use databases to gather information C. Take notes and complete rough draft on magazine cover and stories D. Final draft on mini-magazine (Phase 5)	

DAY 31 AND 32	DAY 33 AND 34	DAY 35 AND 36
SCIENCE		
• Watch Video on The Newest Roller Coasters—Popcorn and treat day	• Prepare students for amusement park field trip	Field Trip—Students complete task assignment sheet
MATH		
		Field Trip—Students complete task assignment sheet
LANGUAGE ARTS		
• Final presentations to the committee (a final team assembly during prime-time will highlight the top five groups)		Field Trip—Students complete task assignment sheet
SOCIAL STUDIES		
		Field Trip—Students complete task assignment sheet