

BATMAN THE RIDE

Six Flags Magic Mountain

1. Prepare for the ride of your life...hang on tight, but most importantly keep your feet inside the car...but...what happened to the floor of the car? Batman The Ride takes the concept of a roller coaster to a new dimension. On Batman, your feet dangle free from the ski lift style trains that hang from the track overhead.

Batman The Ride – The Story

2. After entering through the Gotham City portal, visitors stroll through Bruce Wayne's beautifully landscaped Gotham City Park, complete with ornate sculptures and an ongoing concert of nature sounds symphony.
3. As unsuspecting guests venture further, the peacefulness of Gotham City Park is suddenly disturbed by unsettling noise in the streets, which are now ruled by Batman's arch-enemies. Guests will encounter a crashed police car, broken fire hydrant and other evidence of the growing chaos in the streets.
4. Once in the underground tunnels beneath Gotham City, guests will finally escape through the Batcave and be whisked away on Batman's newest crime-fighting device, Batman The Ride.



Batman The Ride

5. Suspended from the track, riders fly through the air, feet dangling free, experiencing sensations only felt on an inverted coaster.
6. After cresting the ten story lift hill, the ride begins with a 87-foot twisting dive into a seven story tall vertical loop, followed by a zero-G one-of-a-kind spin and a second 68-foot vertical loop.



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7. Riders then proceed at full throttle through several twisting turns, a few quick dips and two more corkscrew inversions sending your feet for the sky, before the brake run.
8. The sensation created by an inverted coaster is very different from that of traditional roller coasters. It is a sensation that every coaster fan must experience. Batman The Ride boasts a top speed of 50 mph that is consistently maintained throughout the ride while giving riders the force of up to 4 G's. The heart pounding centripetal force is felt as riders race around the turns and through the loops.
9. Batman The Ride was built and designed by premier coaster experts Bolliger and Mabillard and was the first inverted roller coaster in Southern California. Today Batman remains one of the most popular attractions at Six Flags Magic Mountain.

Adapted by SAUSD from:

<http://www.ultimaterollercoaster.com/coasters/reviews/batman/>



GHOSTRIDER

Knott's Berry Farm

1. In 1998 Knott's Berry Farm in Buena Park California set out to build one of world's greatest thrill rides and the first major new attraction in nearly a decade. GhostRider would become one of the tallest, fastest and longest wooden roller coasters in the world.

GhostRider – The Ride Experience

2. Designed to fit into the rugged Western town, GhostRider was the first major attraction for the Ghost Town since the Timber Mountain Log Ride opened in 1969. This state-of-the-art wooden roller coaster instantly became the park's flagship attraction and one of the most visible, seen passing over Grand Avenue at the park entrance and from nearby Beach Boulevard.
3. Seated two to a row, 28-passengers depart the station dipping into a spiral turn before approaching the lift hill. While a nice start, it's just a quick teaser of what's to come.
4. While climbing the lift hill riders are treated to a beautiful Southern California view of Knott's and the nearby surroundings. Don't let the pleasant view fool you because the fun quickly begins at the lift's peak, when without warning, the lead car suddenly disappears over the edge. Falling down the 118 ft in the first drop at a 51-degree angle, to reach a top speed of 56 mph! If you're in the rear prepare for the first of what will be many doses of "airtime."



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5. If you're into airtime then GhostRider is going to be your best friend. GhostRider sets a precedent for what airtime should be on a world-class wooden roller coaster...*EXTREME!*
6. Out of the second drop the lead car powers up a hill and dips into a 180-degree turn with a swooping dip at the edge of Beach Boulevard. The trains take the turn with relentless speed, the centripetal force delivers powerful lateral G forces of up to 3.14 G. Out of the turn, the train dives into the third drop, speeding back towards the station.
7. Slowing down high above the station, the trains make a 180-degree turn without banking on level track, producing an intense amount of lateral G force. But don't be fooled by the milder attitude...a surprise awaits, especially for those in the rear of the train.
8. As unexpected as it comes, the train passes through the block break to suddenly fall with force down a steep drop into the middle of the wooden structure. Those in the rear cars will surprisingly be ejected from their seats with force for some standing airtime from the negative G force.
9. The second half of GhostRider takes on a different feel as it winds its way through the immense wooden structure. Screams can be heard from within as the train flies over Grand Avenue to enter the lower level of the second 180-degree turn at the Beach Boulevard end.
10. Headed back towards the station, the train screams up and over a bunny hill crossing Grand Avenue again with a pop of floating air. Entering the finale the intensity does not let up. The train flies into a helix with a speed of 56 miles per hour. Your body is immediately taken over by lateral G forces that are so intense that even the strongest of souls must beg for forgiveness.
11. With speed to spare, the train rounds the final corner to meet the final break run which quickly slows the mining cars to a stop. The initial reaction...words cannot describe it. Quite simply said, GhostRider's one incredible ride!

Adapted by SAUSD from:

<http://www.ultimaterollercoaster.com/coasters/reviews/ghostrider/>

PHANTOM'S REVENGE

Kennywood

1. Thrill seekers beware... a Phantom seeking revenge is lurking at Kennywood Park. Will the Phantom get his revenge?
2. Kennywood is a traditional amusement park with a rich history dating back more than a hundred years. Walking through the Pittsburgh, Pennsylvania park is like taking a step back in time. Many of the park's primary attractions date back to the early 1900's and deliver thrills typical of the era.
3. This reinvented roller coaster is nothing typical of a ride you'd find in a traditional amusement park. Instead, it's a ride of gargantuan size, bird's flight airtime and stealth like speed.
4. The first part of the Phantom's Revenge rises up out of the station sixteen stories. The original steel track bends to the right as it forms the first drop that then leads to the first hill. Once you crest the first hill, the anticipation is over as the train begins the impressive and equally famous 228-foot drop. Heading downward your heart starts racing as the train accelerates to 82 mph before diving under the wooden structure for the Thunderbolt roller coaster. With a high-speed turn to the left, the centripetal force creates powerful positive-Gs as you turn high above the ground.
5. Traveling back towards the impressive drop on a curvy descent out of the previous turn, the track travels again under the historic Thunderbolt roller coaster passing this time through a tunnel. Beware of a head chopper or two that might scare even the most seasoned rider. Flying out of the tunnel, the track turns



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to the right, where roller coaster fans get a glimpse of the numerous, "air time" producing bunny hills ahead.

6. Two small bunny hops near the Phantom's station and the track dives into an exciting double down, reminiscent of a ride on a bucking bronco. The ejector air caused by the negative G-forces will just about satisfy anyone who craves an adrenaline rush.
7. But beware of the Phantom, for he hasn't finished his revenge and has saved one more hidden surprise. Turning to the right the Phantom's hidden element sends you flying out of your seat as the Phantom pummels you with a double up just before the brake run.
8. The Phantom's trains hit the brake run with impressive force and speed. If there's one criticism about this near perfect ride, it's that it is too short. Only 1 minute and 57 seconds. Why end the party by burning the speed with brakes when another thousand feet of track could've done the same? Of course, you can have too much of a good thing and with the desire for more, you'll just have to hop back in line for a second ride.
9. The final verdict is the new Phantom is a flat out winner, and it's the kind of revenge we love.

Adapted by SAUSD from:

<http://www.ultimaterollercoaster.com/coasters/reviews/phantoms-revenge>

X2: Six Flags Magic Mountain

1. It's been dubbed the "most anticipated new ride of the decade" and the world's first "4 D Coaster", but until now no one knew for sure. Now the question is did X2 live up to all the hype?

2. X2 is far different compared to the traditional roller coaster. For the first time ever riders are seated in prototype vehicles that spin independently 360-degrees forwards and backwards on a separate axis. The added spinning effect creates an unprecedented and never before "don't know what to expect next" sensation.



3. The quest for amusement parks to build something bigger and better has been at its height in the past several years. But building restrictions are preventing many parks from going taller and faster, so the industry is looking to the designers to come up with new ideas. X2 is exactly that, a new idea that really pushes the roller coaster to a new level.

4. So would X2 live up to the expectations of being the first 4th Dimension Coaster?

5. The first thing riders will notice about X2 are the monster-sized trains inside the station. The 20-foot wide, 70-foot long wing shaped vehicle seats 28 passengers, two abreast in fourteen individual cars, seven positioned on each side of the train.

6. The state-of-the art restraint system adjusts to each rider's size and safely secures the individual for the duration of the ride.

7. Leaving the station facing backwards, the train rounds a turn and begins its ascent up 190 feet, before reaching the crest of the lift hill. Traveling backwards riders get an impressive, sweeping view of Six Flags Magic Mountain, and are not afforded the comfort of seeing what's to come.

8. Before plunging off the near vertical first drop, the seats you're strapped in suddenly flip forward placing the rider in a position few will be comfortable with. Chills run up your spine, as you realize there is nothing between you and the ground below, as you hang in the restraint disoriented by this sudden surprise. Try not to lose focus now, as the train is about to fall off a steel cliff and drop like a brick.

9. The first drop is insane, descending 215 feet at a near vertical 88.5-degree angle, to reach a blazing speed of 76 mph. But get this, just as you reach full velocity, your seat completes that forward flip that you began 200 feet above all while you experience a G-force of up to 4.0.

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10. Before you've got any clue about what just happened you're back in the upright position, soaring into the first, massive 185-foot Raven Turn. Fly birdie... FLY as the train gains altitude and soars through the turn placing the riders into a flying position. Look down from eighteen stories, spread those arms out and fly... uh, maybe you should scream... SCREAM!
11. Descending out of the Raven Turn the seats rotate backwards as they descend into a valley in the track, but don't relax as the next surprise awaits. As the train rockets into a bunny hop, the seats do a complete zero-G back flip that is filled with beautiful airtime. This makes for a weightless flip that is a perfect floater, graceful and smooth.
12. So now you realize this ride is filled with surprises... and you'd better believe it. The intensity never lets off as the train rounds a sweeping turn high above the station and dives into one of the best elements of the entire ride.
13. Try combining a half-twist, with a forward flip, while traveling at a furious pace and you get one radical maneuver. And as unbelievable as it seems X2 pulls off this feisty element in style, leaving you so disoriented that you literally cannot comprehend the centripetal force that hurls you into the second Raven Turn.
14. And guess what? The ride is not over! With speed to burn, the train soars through the another Raven Turn, this time on the outside of the track and ascends into the final maneuver, a back flip that concludes by sliding into the brake run.



Adapted by SAUSD from:
<http://www.ultimaterollercoaster.com/coasters/reviews/x2/>

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Jigsaw Matrix – Roller Coaster Thrills

	Batman	Ghost Rider	Phantom	X2
Where is the roller coaster found?				
Describe the type of roller coaster.				
What is the maximum speed of the roller coaster?				
Describe the thrilling components of the ride.				
What forces are found in a roller coaster?				