

STEM CHALLENGE

SIX FLAGS RACEWAYS

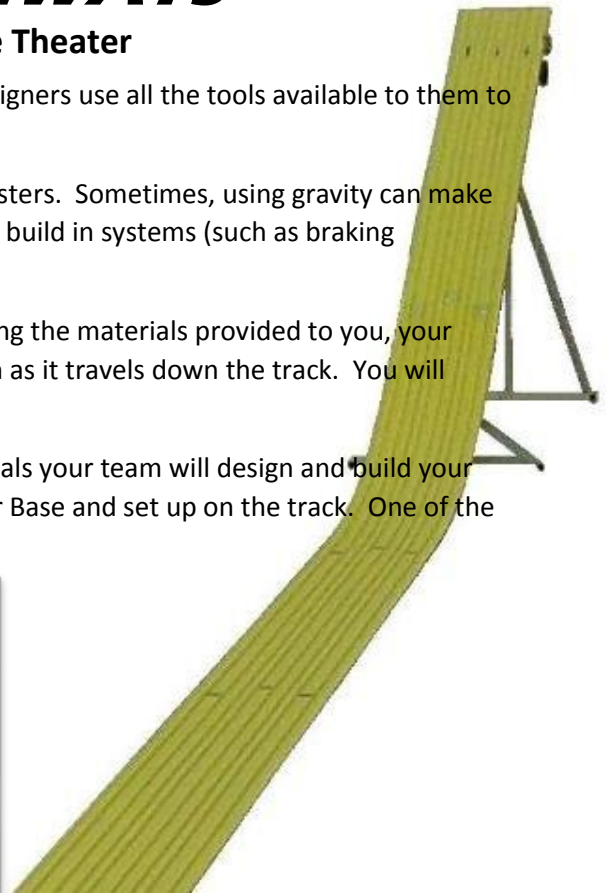
4/20/17 12pm Showcase Theater

There are many things to consider when designing thrill rides. Ride designers use all the tools available to them to make a great ride. They should be fast and fun, but not too fast!

Using gravity to make the rides move is common to nearly all roller coasters. Sometimes, using gravity can make the roller coaster car travel faster than the ride designers want, so they build in systems (such as braking platforms) to slow down the cars.

In this challenge, you will be designing your own “braking system”. Using the materials provided to you, your team must design a roller coaster car that has a way to slow itself down as it travels down the track. You will “race” against other teams – the car who comes in last wins!

You will be given a Car Body and a bag of materials. Using these materials your team will design and build your vehicle. When it is time to race, your Car Body will be attached to a Car Base and set up on the track. One of the event organizers will start the race. Let’s hope you come in last!



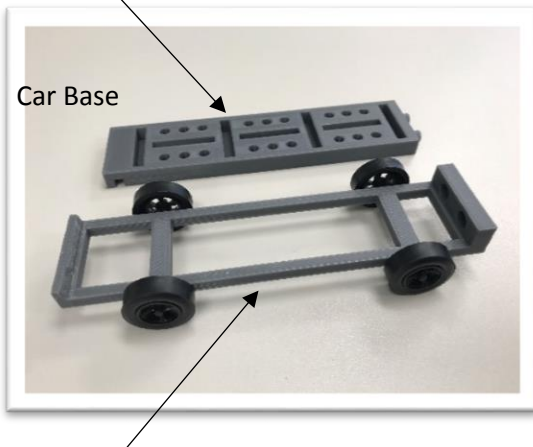
Materials Provided:

- Car Body
- Assorted K’Nex
- Craft Sticks
- Binder Clips
- Paper Clips
- Rubber Bands
- Index Cards
- 5 inches of adhesive tape



Car Body

Car Base



The Rules:

- Your team will have 10 minutes to design your vehicle
- Only the materials provided may be used in your design
- Your team’s vehicle must cross the finish line within 15 seconds after the race starts.
- If your vehicle is too slow or gets stuck on the track it will be disqualified!
- Your vehicle cannot interfere with another team’s vehicle
- Your vehicle must adhere to the maximum dimensions in the race day rules
- All decisions of the judges are final!

Pre-Registration is encouraged

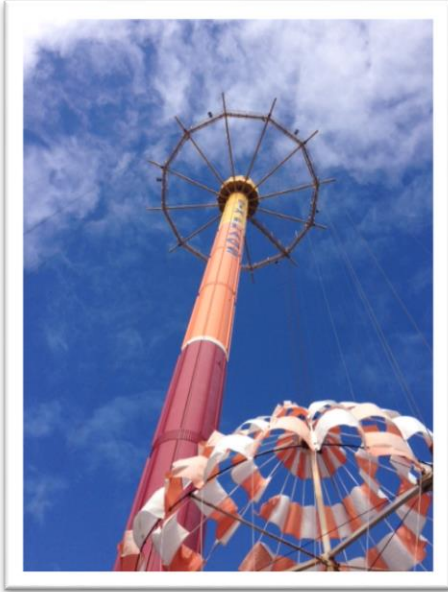
Register by contacting NJspecialevents@sixflags.com

STEM CHALLENGE

EGG DROP OF DOOM

4/20/17 9 – 10am Parachutes

DON'T LET YOUR STUDENTS MISS THE EGG-CITING STEM COMPETITIONS
DURING THE EXCLUSIVE PHYSICS DAYS IN 2018!



Multiple Age groups and Divisions
for competitors!

- K – 5; 6 – 8; 9 – 12
- Teams up to 4 Students
- Different Prize Divisions based on design

Have your students design and build a vehicle to safely transport eggs on a thrilling 250 foot drop!*

Bring it to the park and test it out.



EGG-DROP OF DOOM RULES



Maximum Vehicle weight: 1 pound

Vehicle must land in target area, or it is disqualified (must fall straight down)

No parachutes, liquids, propellants, or hazardous materials

No more than 27 cubic inches of foam or padding allowed (3"x3"x3")

Any vehicle construction that would cause possible harm/damage/significant mess upon failure will not be allowed to drop

All decisions of the judges are final!

All Egg Drop of DOOM participants will receive certificates, and winning teams will receive prizes! *In the event of bad weather conditions, the event will be moved to Showcase Theater.

Pre-Registration is required:

Register by contacting NJspecialevents@sixflags.com

STEM CHALLENGE

SKYWAY KINEMATICS

4/20/17 1 - 2pm Lakefront Skyway

Six Flags allows you to throw an item off a ride - you know for science!

Can you hit the target on the ground from the moving skyway?

What factors make this task difficult?

Open to all – Can you do better than your teacher can?



Pre-Registration is not needed – Just show up!

STEM EVENT

MEET THE ENGINEER

4/20/17 11am Showcase Theater

Larry Chickola,
Chief Corporate Engineer
Six Flags Great Adventure

