



Amusement Park Physics



This website is designed to help you gain a better understanding of forces and what they do. You need to complete the series of activities outlined below and answer any questions in your science journal (full sentence answers). Have fun!

Go to the website: <http://learner.org/exhibits/parkphysics/index.html> or if this fails to load go to www.ask.com and in the question toolbox type "Amusement Park Physics" and you will come to the same website.



Click on "Roller Coaster".

1. Draw a diagram to explain how a roller coaster actually works



Click on the link "Design your own roller coaster" and have a play around with the different types of courses. (Spend about 10 minutes doing this before you move on to the next activity).



Click on "physics glossary".

2. Write a definition of the following words (include diagrams to help with your understanding of these words)

- Kinetic energy
- Momentum
- Potential energy

Scroll down to the bottom of the screen.



Click on "Carousel"

3. If a carousel could gain enough speed what would actually happen to the people riding it?

Scroll down to the bottom of the screen.



Click on "Bumper Cars"



4. Why do bumper cars have a big rubber bumper around them?



Click on link "Colliding cars" and have a go at predicting the outcome of certain crashes.



Click on link "Read more about Newton and the laws of motion"

5. When and where was Newton born?

6. What type of person was Newton?

Scroll down to the bottom of the screen.



Click on "Free fall"

7. What is a free fall?

Scroll down to the bottom of the screen.



Click on "Pendulum"

8. What are pendulum rides? Draw a diagram to help you explain.

9. What is centripetal force?



Click on link "Read about motion sickness"

Scroll down to the bottom of the screen.



Click on "Pendulum"

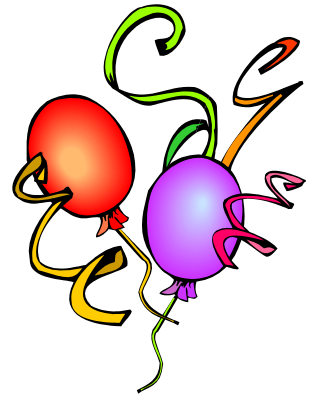


Click on "ride safety"

10. How many people visit amusement parks in a year?

11. What percentage of riders get injured?

12. Design a piece of safety equipment that may help to reduce the incidence (frequency) of these accidents.



End of Web Quest

