Dr. booyA’s “Biology” Kennywood Questions*

PLEASE EXPLAIN ALL ANSWERS - PHOTOGRAPHIC EVIDENCE REQUIRED FOR SOME

1. How many experimental organisms (or very close relatives) can you find and take a picture of in Kennywood Park? Please provide both their common and scientific names. Note: they need not be actual living creatures.

2. You are working in a lab very close to Kennywood Park. You need to vigorously mix and then spin a sample for a very important experiment, but notice that all of the vortexers/mixers and centrifuges in the lab are broken. You have the great idea to take your sample to the park and use the rides to complete your experiment.
   Which ride would you use as your vortexer and why?
   Which ride would you use as your centrifuge and why?

3. What ride/feature/item in Kennywood Park do you think most closely resembles...
   ...DNA (any form)? ...a model of an atom? ...your favorite protein structure?
   and Why? (provide photographic data if necessary)

4. Create a medically-/scientifically-related sentence that includes the names of at least 4 of the rides, games, attractions, or food stands in Kennywood Park. Underline each of the 4 names in your sentence.

5. What do you think the "unhealthiest" food is in Kennywood Park? Why?

6. How are dipping dots made?

7. Approximately what percent of people in Kennywood Park are smoking at any particular point of the day? How did you arrive at this estimate?

8. Your friend is recovering from an abdominal hernia operation, but wants to go on some rides in Kennywood Park. The doctor who performed the operation said that your friend should avoid rides with jarring horizontal movements (vertical movements are ok).
   What are the top 3 rides that you would recommend to your friend?
   What are the top 3 rides that you would advise your friend to avoid?

*(Dr. booyA’s Questions created by Joseph C. Ayoob, PhD and Inspired by Kennywood Amusement Park Physics Test by Ed Henke, Retired Physics Teacher, Pittsburgh Public Schools)