

**Title:** PhET Energy Skate Park

**Purpose:** The purpose of this interactive computer program is to discover how changing the mass, friction, or gravity affects the skater's energy, identify the points of potential energy versus kinetic energy, and calculate speed or height at one position from information about a different position.

**Grade Level/TEKS Reference:** 6.2 E: analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends; 6.8 A: compare and contrast potential and kinetic energy; 6.8 B: identify and describe the changes in position, direction, and speed of an object when acted upon by unbalanced forces

Length of time necessary for game or activity: 30 minutes

**Number of Participants:** 1 student per computer

**Source for Game or Activity:** [https://phet.colorado.edu/sims/html/energy-skate-park-basics/latest/energy-skate-park-basics\\_en.html](https://phet.colorado.edu/sims/html/energy-skate-park-basics/latest/energy-skate-park-basics_en.html)

**Procedure:**

- Click on Playground
- You will design a skate track for your skater!
- Your skater must make it to the end of the track (can't get stuck in the middle)
- You must list the Mass, Friction level, and if your skater was "attached" or not to the track.
- (ZOOM Kids) You will screen shot (snipping tool) and paste on to the next slide your track
- (In person kids) You will draw your track on the back of the question page and make sure to list all the information above.

**Adapted by:** Chelsea Hess (Watson) 2021