**Energy Skate Park Mission**

(No time limit)

**Instructions:**

### In this activity, you'll **become a physicist** experimenting with energy — kinetic energy, potential energy, and how energy changes when you move.

### For this activity, please go to:

**Disclaimer:**  
This worksheet is distributed for free and is not intended to measure a child's skills or intelligence. It is designed as a supplementary exercise to support the child's learning alongside the educational activities they receive from schools or other institutions.0

<https://phet.colorado.edu/sims/html/energy-skate-park/latest/energy-skate-park_all.html>

It should lead you to a page that has this illustration:

A screenshot of a video game

AI-generated content may be incorrect.

🧠 Mission Objectives:

1. Create a track for the skater. (Try a U-shape first.)
2. Send the skater down the track. Watch what happens to:
   * Kinetic Energy (K.E.)
   * Potential Energy (P.E.)
   * Thermal Energy (if friction is turned on)
3. Experiment with different heights and ramps.

**🔥 Challenge 1:**

What happens to the skater’s speed when you **start him from a higher place**?

* Answer:

**🔥 Challenge 2:**

When friction is turned ON, what happens to the skater's movement over time?

* Answer:

**Disclaimer:**  
This worksheet is distributed for free and is not intended to measure a child's skills or intelligence. It is designed as a supplementary exercise to support the child's learning alongside the educational activities they receive from schools or other institutions.

**🔥 Challenge 3:**

Build your crazy track.  
Where is the highest speed reached?  
Why do you think that's where it happens?

* Answers: