

## Potential Energy Quiz PDF

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**How does the conservation of energy principle apply to potential energy in a closed system?**

**Which type of potential energy is primarily involved in hydroelectric power generation?**

- Elastic
- Chemical
- Gravitational
- Nuclear

**What factor does NOT affect gravitational potential energy?**

- Mass of the object
- Height above the ground
- Color of the object
- Gravitational field strength

**Which of the following objects has the most gravitational potential energy?**

- A book on a table
- A book on a shelf
- A book on the floor
- A book in a drawer

**What happens to the potential energy of an object as it falls freely under gravity?**

- It increases
- It decreases
- It remains constant
- It doubles

**In the formula for gravitational potential energy,  $PE = mgh$ , what does  $h$  represent?**

- Heat
- Height
- Humidity
- Hydrogen

**In which scenarios is elastic potential energy stored?**

- A compressed spring
- A stretched rubber band
- A moving car
- A bent diving board

**What are the possible outcomes when potential energy is converted in a closed system?**

- It becomes kinetic energy
- It is lost completely
- It is conserved as total mechanical energy
- It becomes thermal energy

**Which of the following best describes potential energy?**

- Energy of motion
- Energy stored due to position
- Energy released during combustion
- Energy of sound waves

**Which factors affect the gravitational potential energy of an object?**

- Mass of the object
- Speed of the object
- Height above the ground
- Gravitational field strength

**Discuss the role of potential energy in the operation of a hydroelectric power plant.**

**Explain how gravitational potential energy is calculated and provide an example.**

**Describe a real-world application where potential energy is converted into kinetic energy.**

**Explain the difference between elastic potential energy and chemical potential energy, providing examples of each.**

**Which type of potential energy is stored in a stretched rubber band?**

- Gravitational
- Elastic
- Chemical
- Thermal

**What is the unit of measurement for potential energy in the International System of Units (SI)?**

- Newton
- Joule
- Watt
- Pascal

**Which statements about potential energy are true?**

- It can be converted into kinetic energy
- It is always greater than kinetic energy
- It depends on the position or state of an object
- It is a form of mechanical energy

**Which of the following are types of potential energy?**

- Gravitational
- Elastic
- Kinetic
- Chemical

**What is the relationship between potential energy and kinetic energy in a pendulum?**

**Which of the following objects have potential energy?**

- A battery
- A rock at the edge of a cliff
- A rolling ball
- A stretched bowstring