

# Forms of Energy

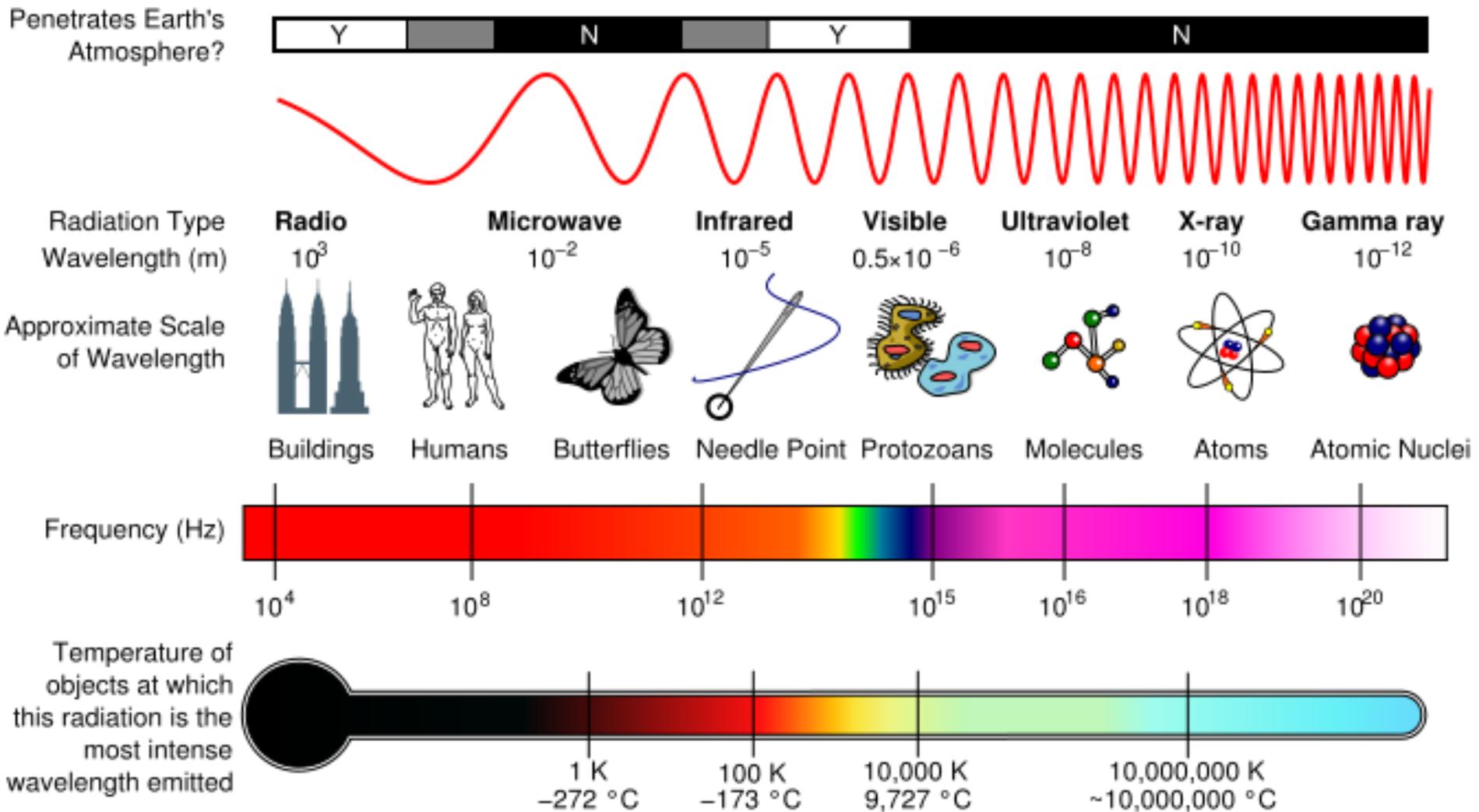
9/15/14



The photo of the flower on the left shows how it appears to our eyes, in visible light. But there's more to the story! The false-color view of the flower on the right shows its appearance in the ultraviolet, beyond the range of human vision, revealing pigments we can't see. Whose eyes are these pigments intended for?

# Electromagnetic waves

Here's another representation of Electromagnetic waves. This one shows you examples of the size of the different waves and at what temperature an object must be to emit these waves.



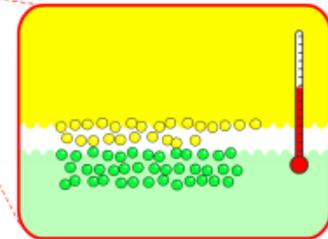
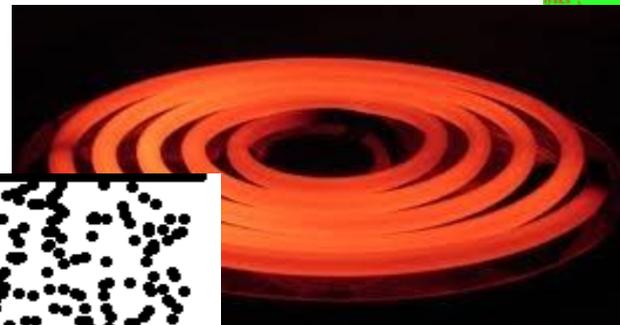
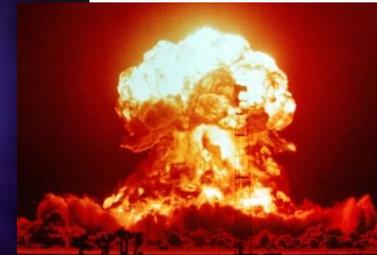
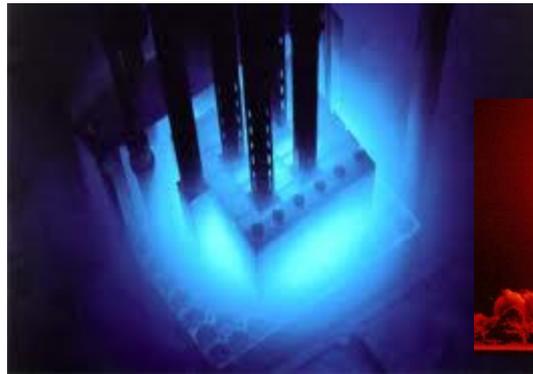
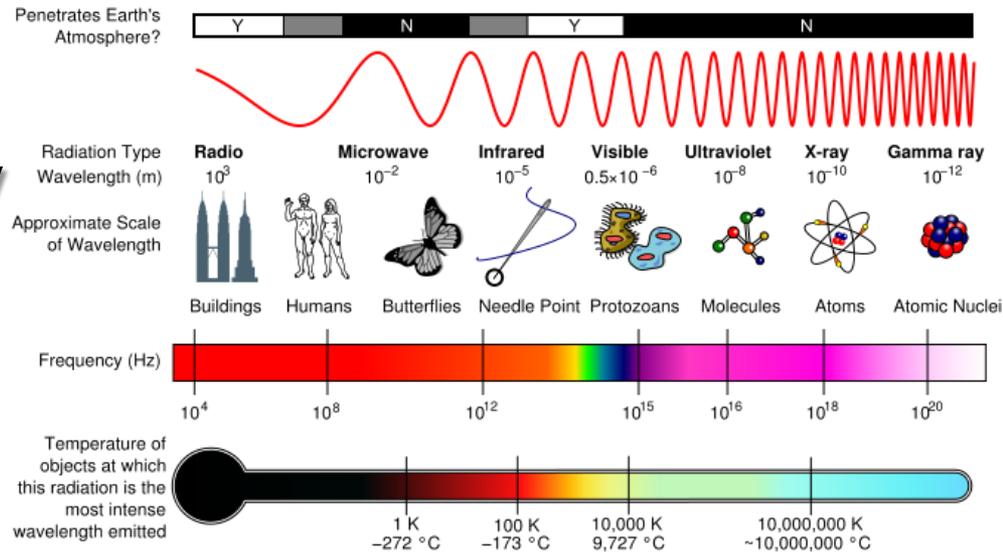
# Types of Energy

- Chemical
- Mechanical
- Electrical
- Magnetic



# Types of Energy

- Electromagnetic
- Nuclear
- Thermal
- Sound



Reset

# What form is it?

What form of energy is flowing water?

- A. It is Chemical
- B. It is Electrical
- C. It is Kinetic
- D. It has/carries Kinetic
- E. It has/carries Electrical

# What form is it?

What form of energy is wood?

- A. It is Chemical
- B. It is Thermal
- C. It is Kinetic
- D. It has/contains Chemical
- E. It has/contains Thermal

# What form is it?

What form of energy does a banana have?

- A. Chemical
- B. Thermal
- C. Kinetic
- D. A and B
- E. B and C

# What form is it?

What form of energy do the lights in this room give off?

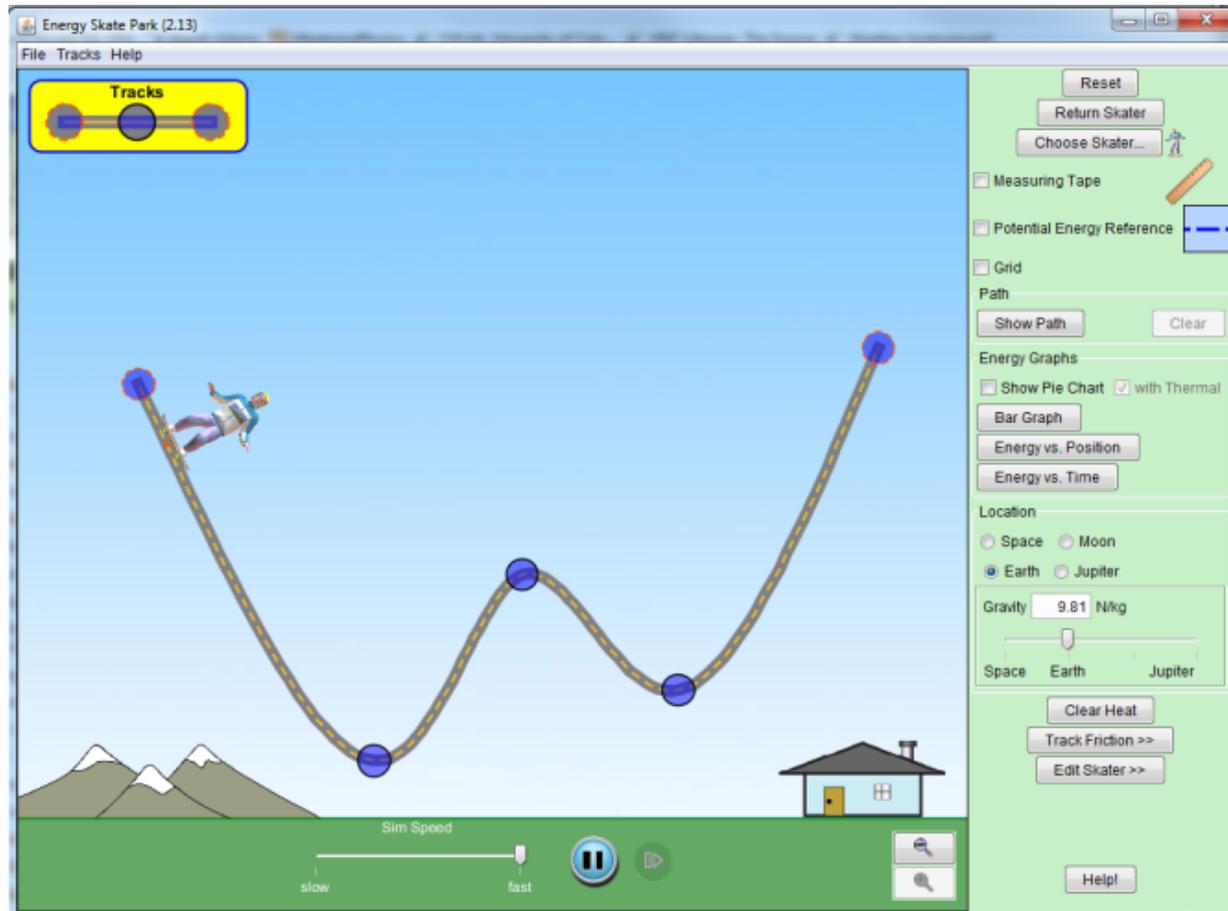
- A. Chemical
- B. Thermal
- C. Electromagnetic
- D. A and B
- E. B and C

# What form is it?

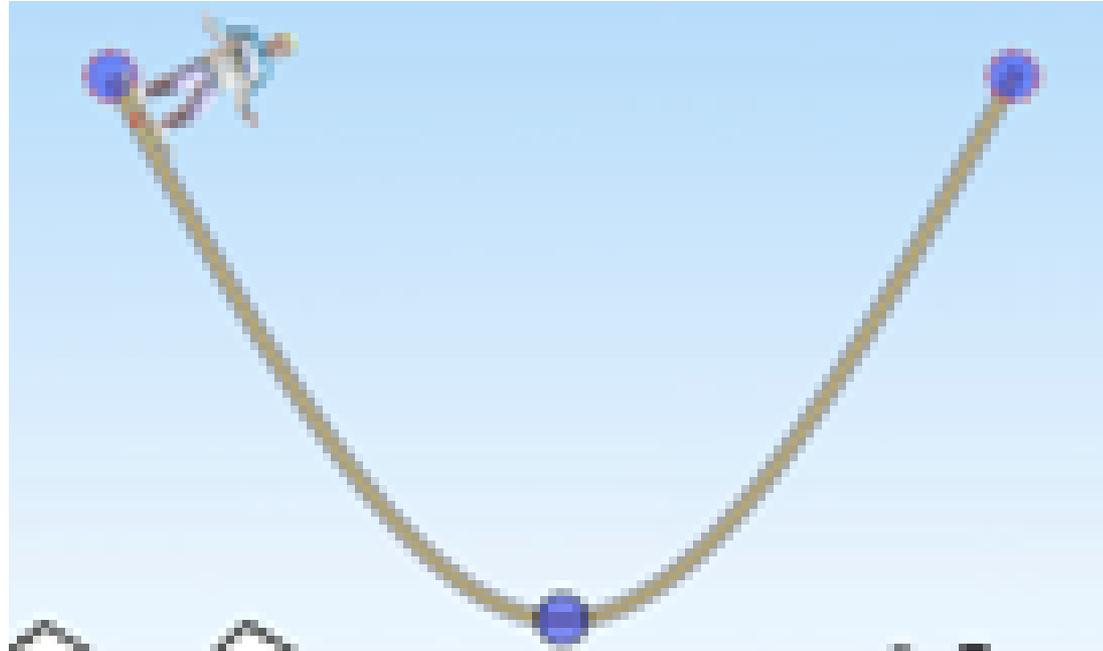
What form of energy does the projector in this room give off?

- A. Thermal
- B. Electromagnetic
- C. Sound
- D. A and B
- E. A, B and C

# Kinetic and Potential Energy

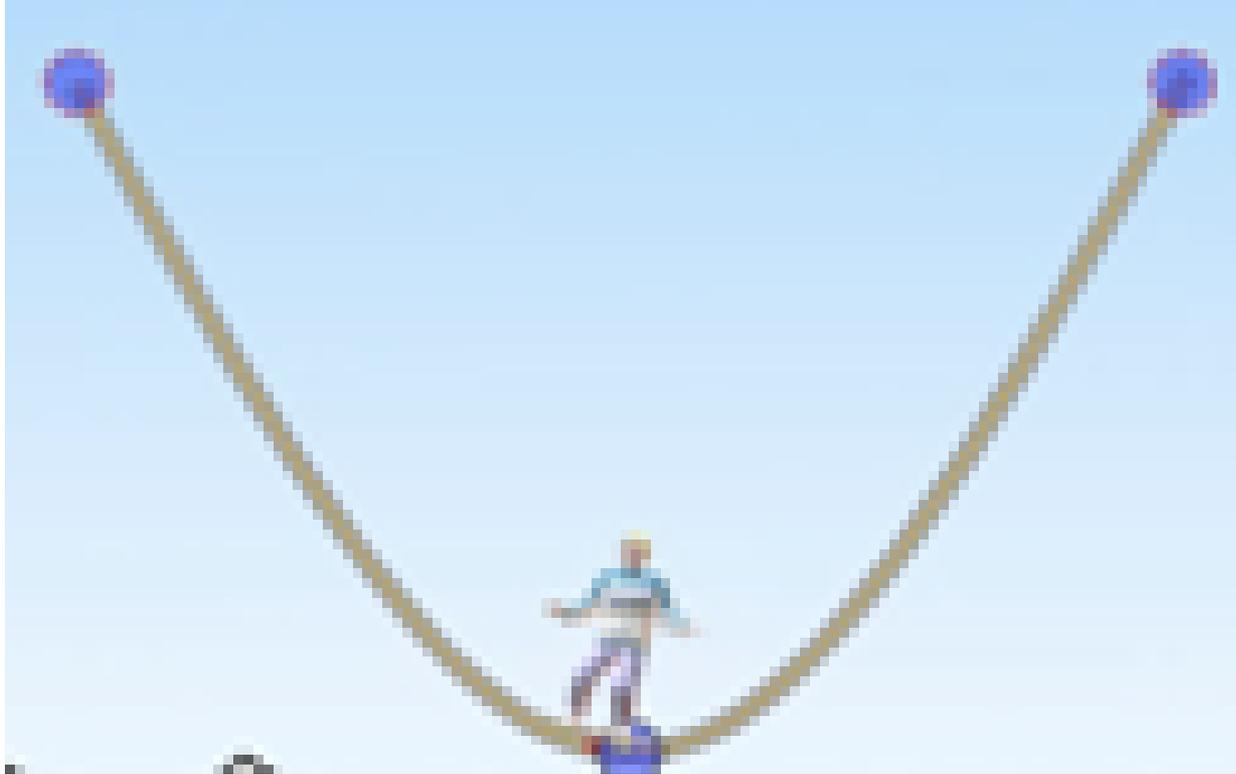


1. If the skater starts at rest at this point, what kind of energy does he have?



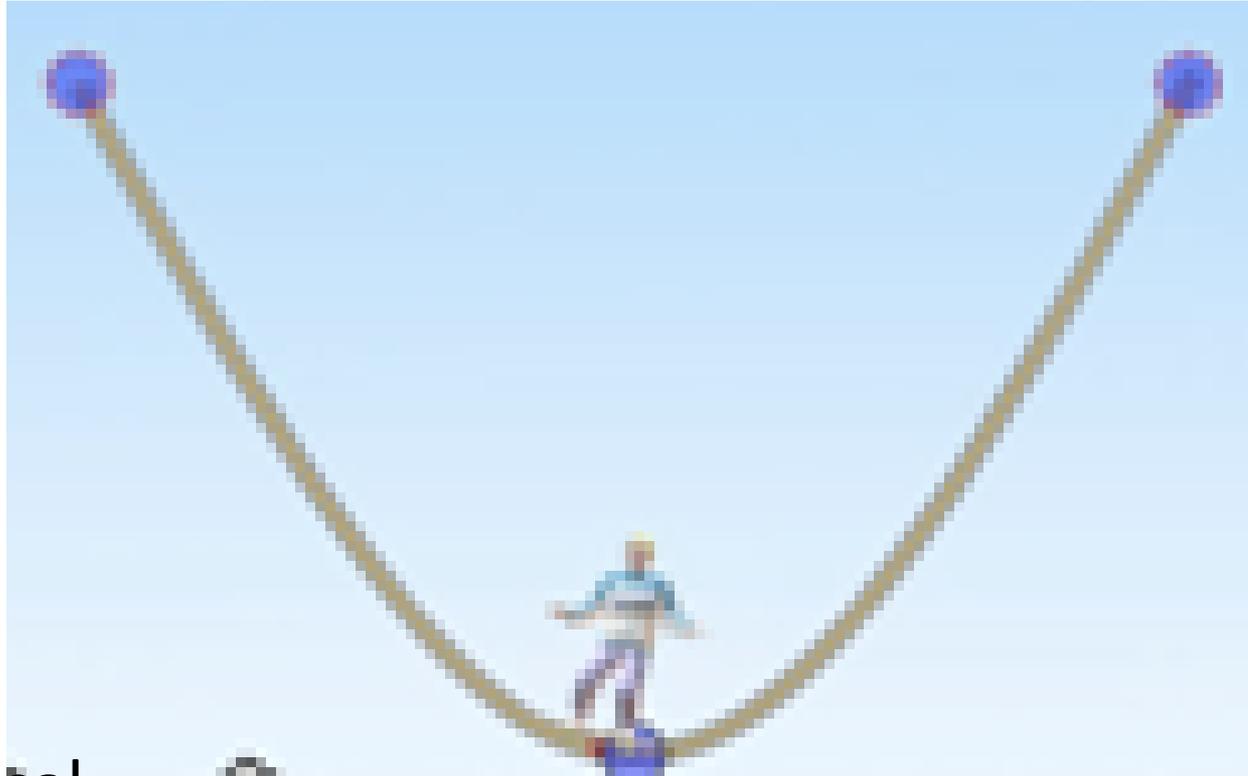
- A. Electrical
- B. Kinetic
- C. Gravitational Potential
- D. None

## 2. How about at the bottom?



- A. Electrical
- B. Kinetic
- C. Gravitational Potential
- D. None

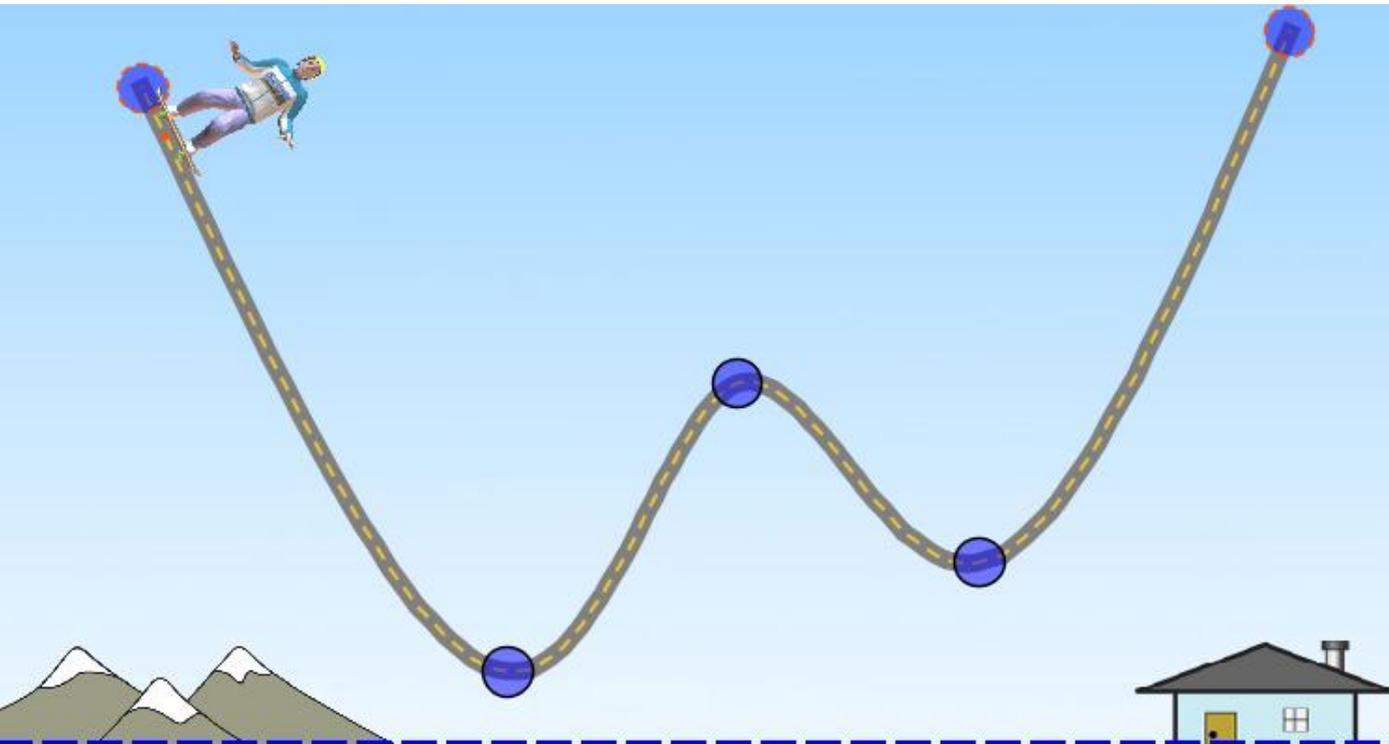
3. What kind of energy does the skater add to himself if he puts his foot down and pushes?



- A. Electrical
- B. Kinetic
- C. Gravitational Potential
- D. None

# Energy Form

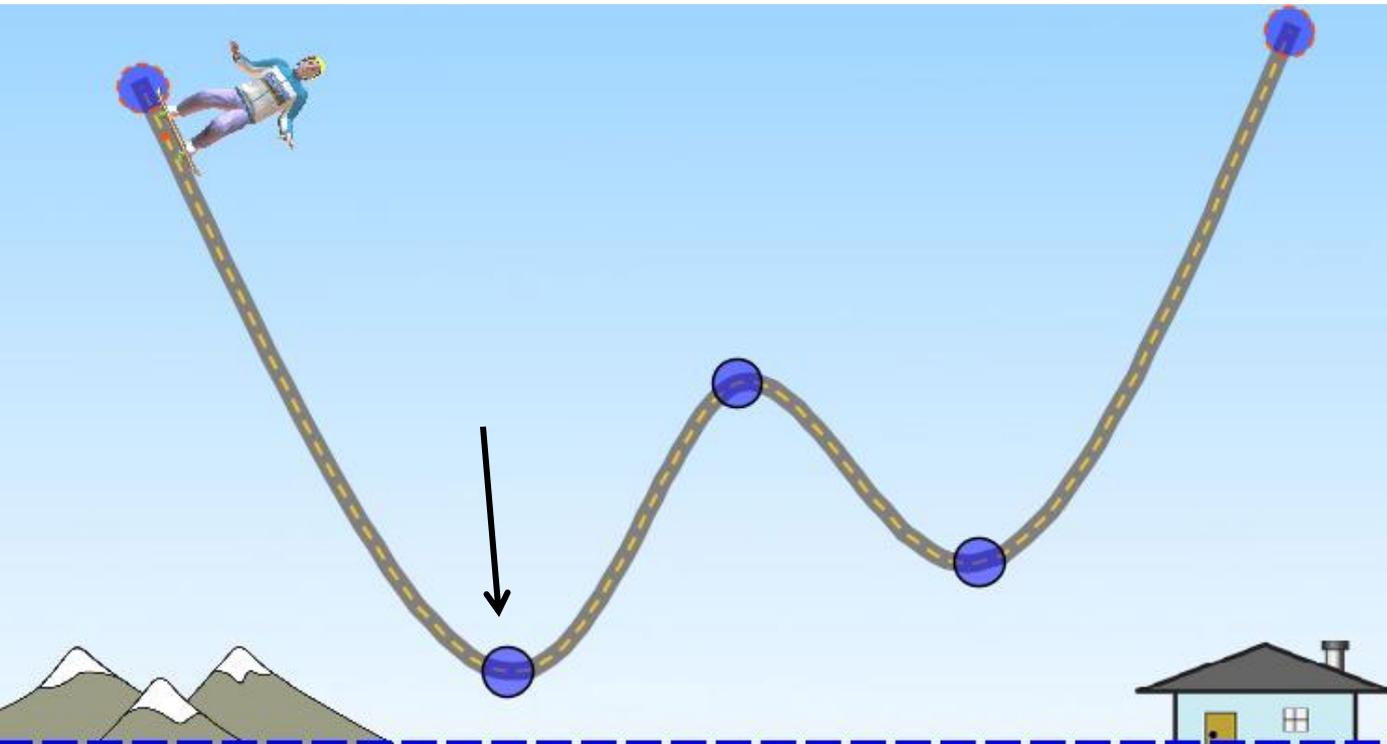
If the skater is released from rest at the point shown, what kind of energy does he have? Friction is off.



- A. Kinetic
- B. Grav.  
Potential
- C. Thermal
- D. Kinetic and  
Grav.  
Potential
- E. None

# Energy Form

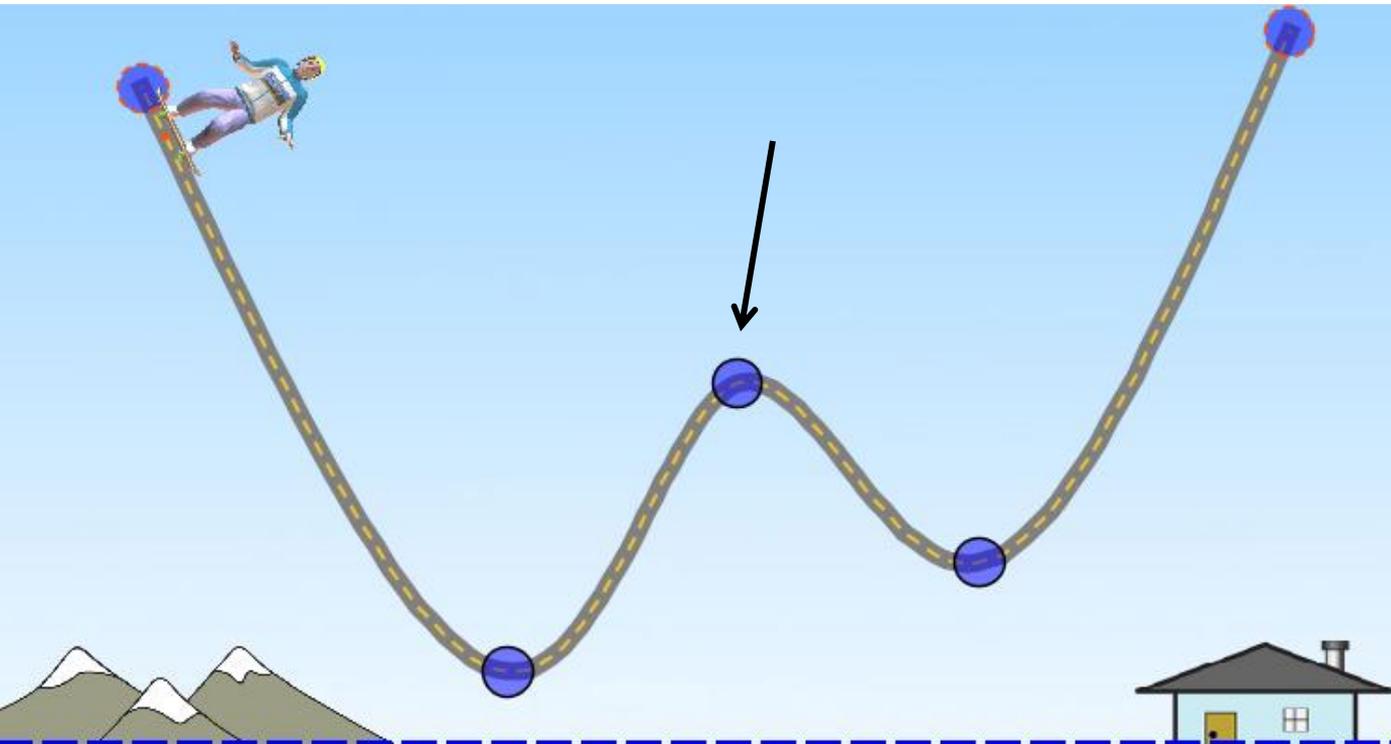
At the second blue dot, what kind of energy does he have?



- A. Kinetic
- B. Grav.  
Potential
- C. Thermal
- D. Kinetic and  
Grav.  
Potential
- E. He won't get  
there.

# Energy Form

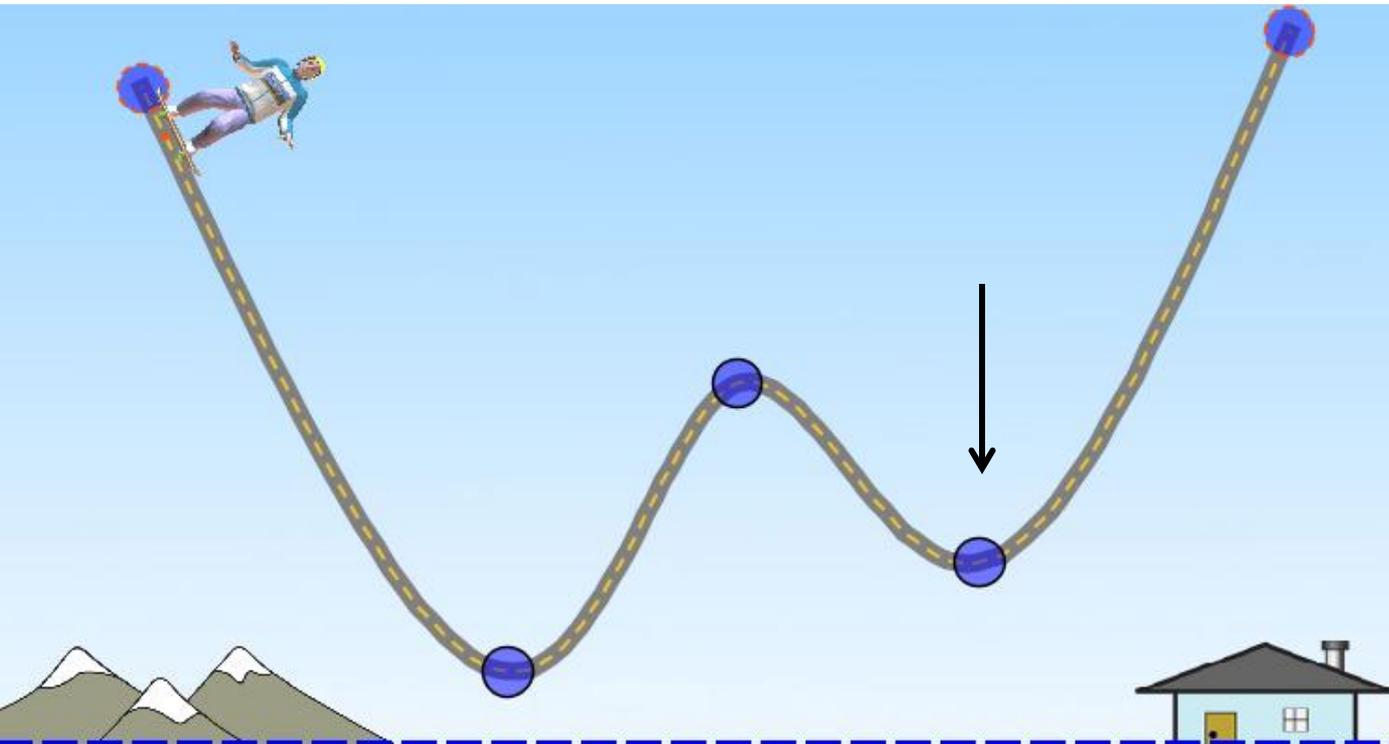
At the third blue dot, what kind of energy does he have?



- A. Kinetic
- B. Grav.  
Potential
- C. Thermal
- D. Kinetic and  
Grav.  
Potential
- E. He won't get there.

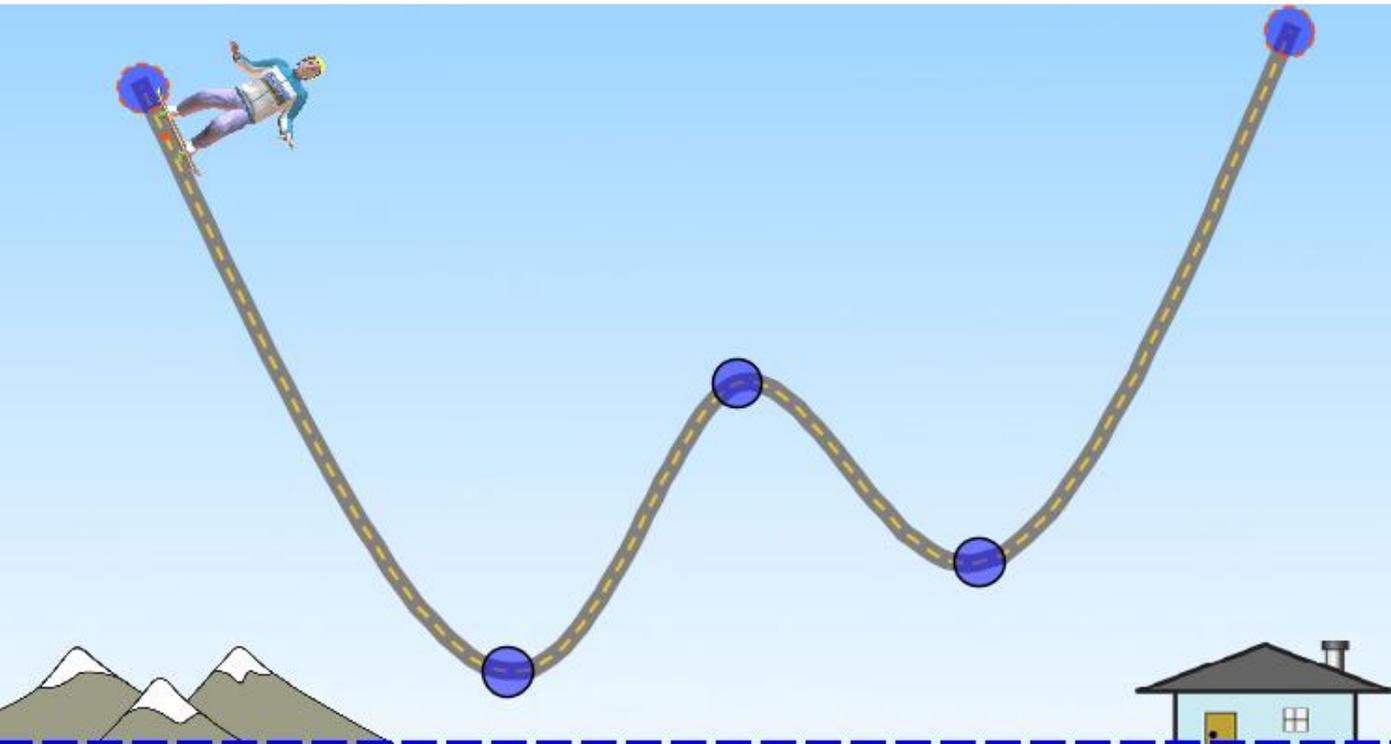
# Energy Form

At the fourth blue dot, what kind of energy does he have?

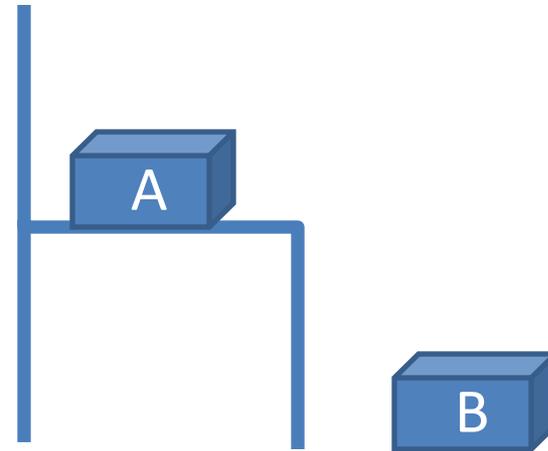


- A. Kinetic
- B. Grav.  
Potential
- C. Thermal
- D. Kinetic and  
Grav.  
Potential
- E. He won't get  
there.

- Watch the pie chart to see how energy exchanges between potential and kinetic.

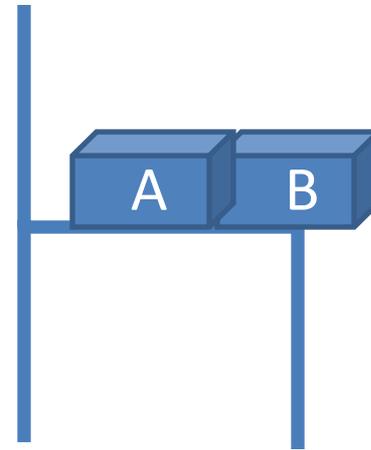


4. Which has more gravitational potential energy?



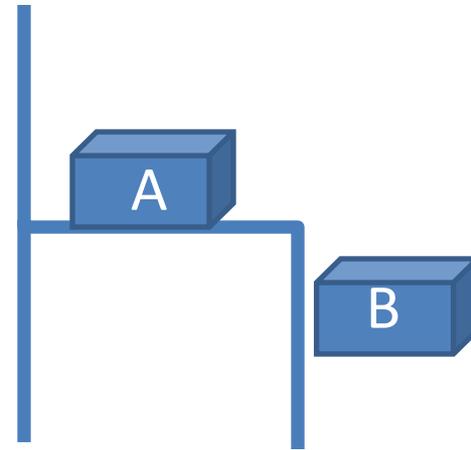
- A. box A
- B. box B
- C. Equal

5. What kind of energy will I give box B if I put it on the chair?



- A. Electrical
- B. Kinetic
- C. Gravitational Potential
- D. None

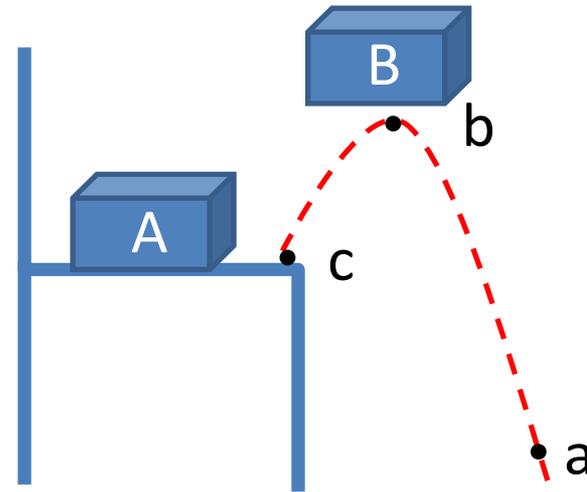
6. What about *while* I'm moving it?  
What kind of energy does it have?



- A. Electrical
- B. Kinetic
- C. Gravitational Potential
- D. None

Let's say I toss it up to the chair.

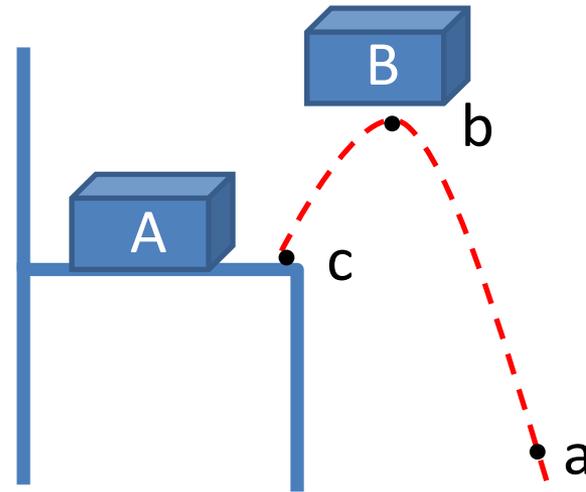
7. What kind of energy does it have at point a?



- A. Electrical
- B. Kinetic
- C. Gravitational Potential
- D. None

Let's say I toss it up to the chair.

7. What kind of energy does it have at point b?



A. Electrical

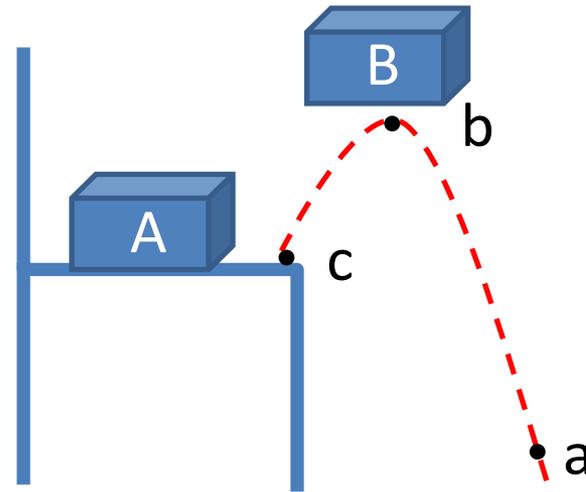
B. Kinetic

C. Gravitational Potential

D. None

Let's say I toss it up to the chair.

7. What kind of energy does it have at point c?



- A. Electrical
- B. Kinetic
- C. Gravitational Potential
- D. None

Let's say I toss it higher before it lands on the chair.

8. How does the KE and PE at points a1 and a2 compare?

How about b1 and b2?

How about c1 and c2?

