

Forms of Energy

9/17/14

Liquid air

Nitrogen boiling point $-321\text{ }^{\circ}\text{F}$

Oxygen boiling point $-297\text{ }^{\circ}\text{F}$

Carbon Dioxide freezing point
 $-109\text{ }^{\circ}\text{F}$



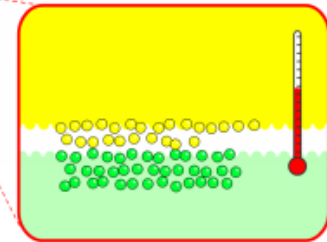
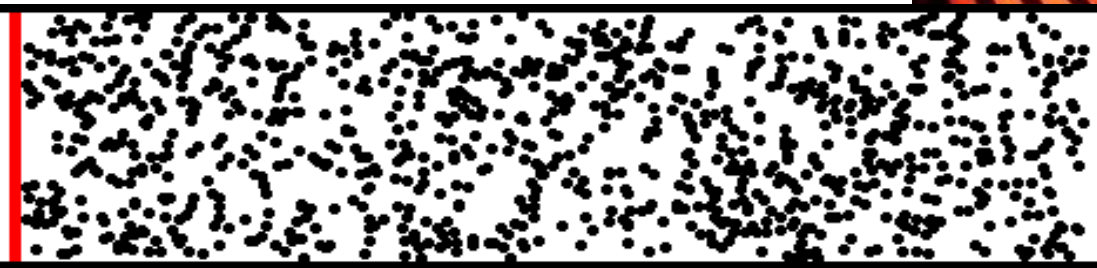
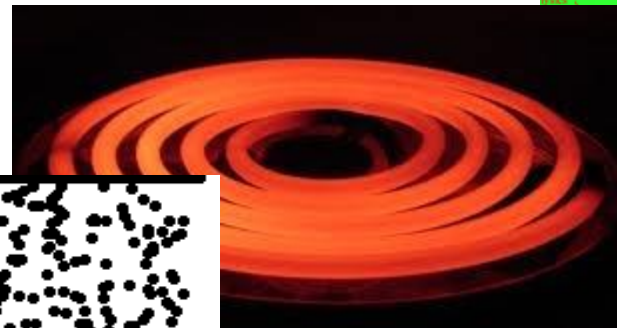
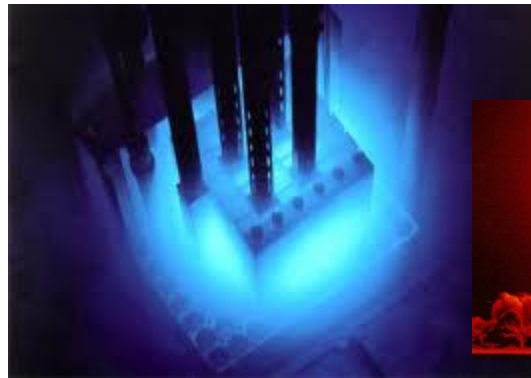
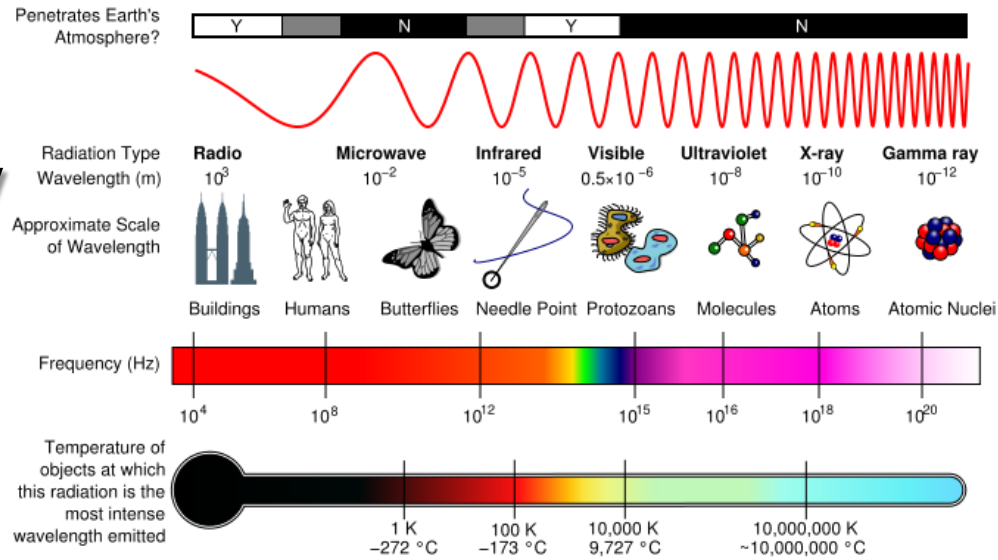
Types of Energy

- Chemical
- Mechanical
- Electrical
- Magnetic



Types of Energy

- Electromagnetic
- Nuclear
- Thermal
- Sound



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 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 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 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 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?

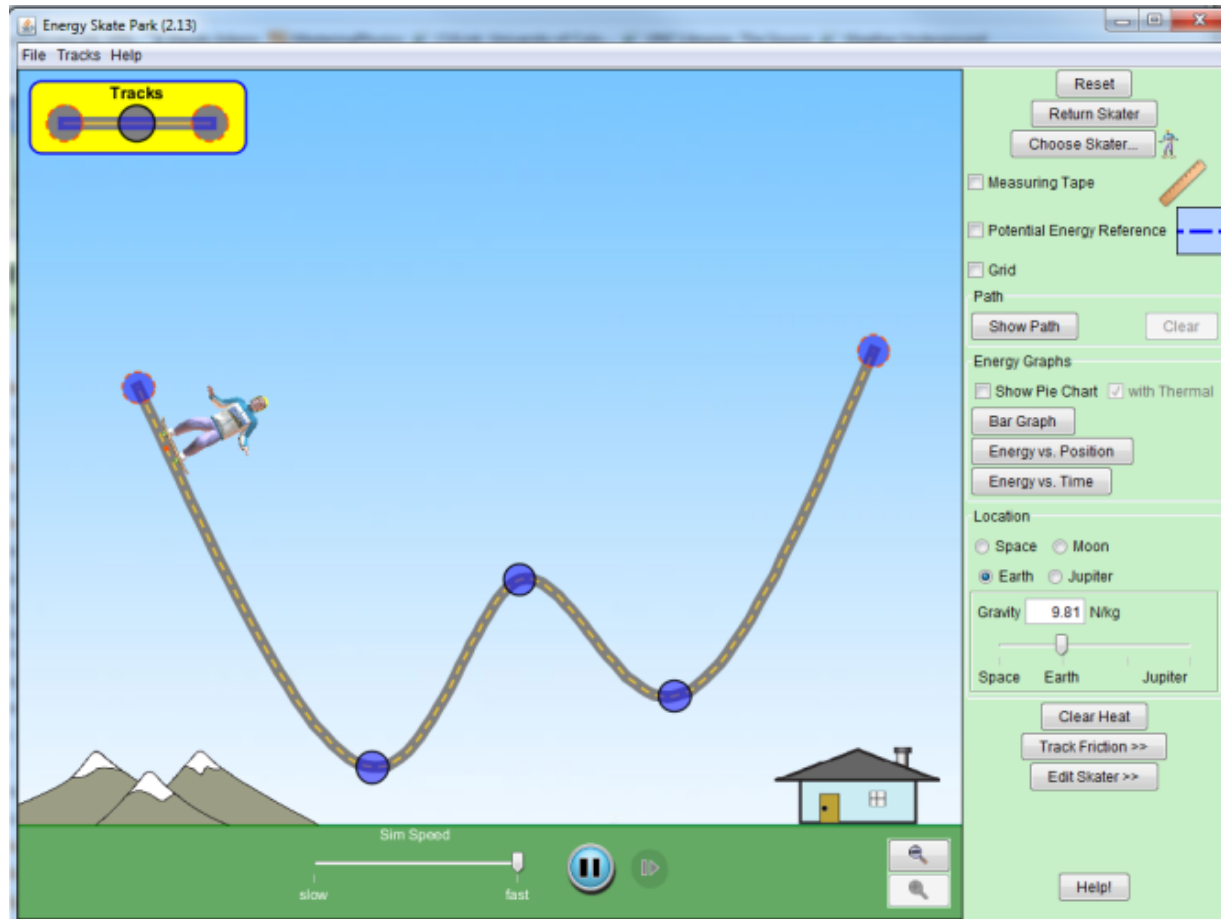
- A. Thermal
- B. Electromagnetic
- C. Sound
- D. A and B
- E. A, B and C

What form is it?

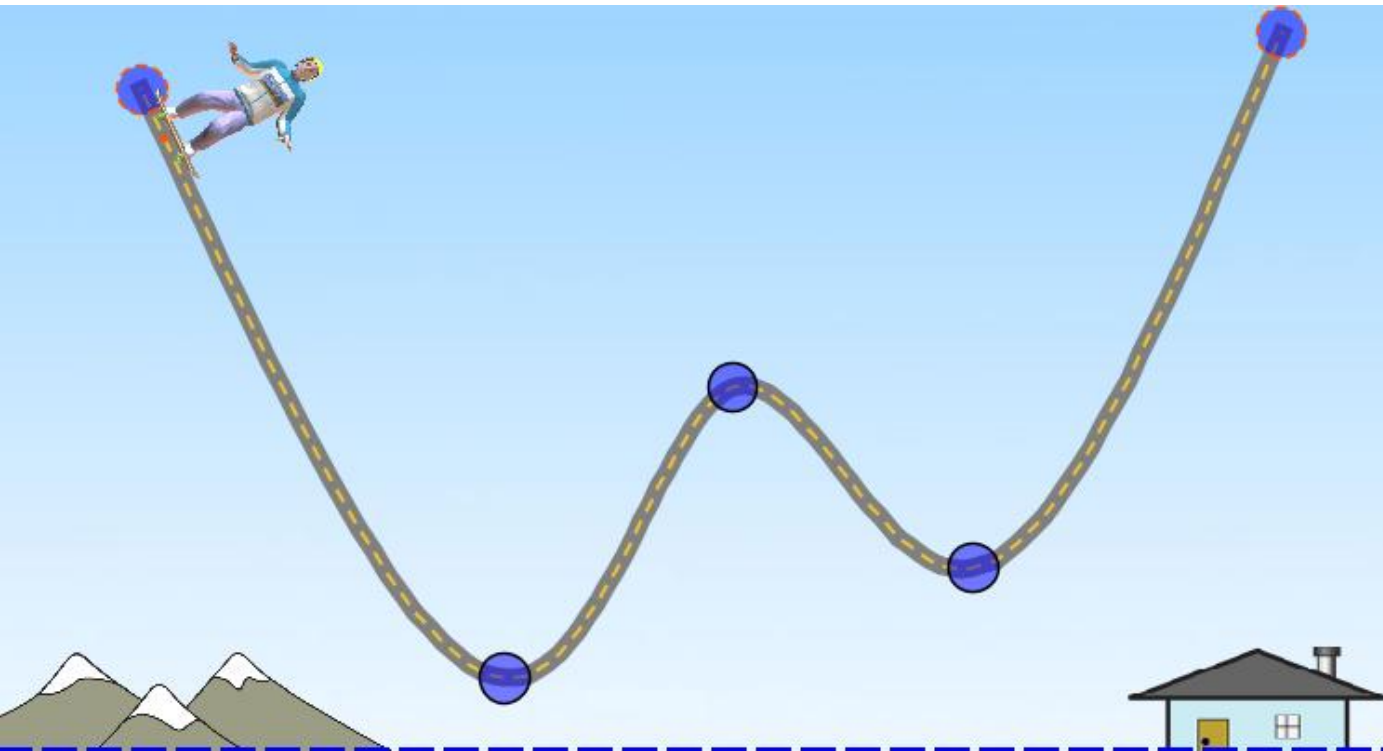
What form of energy does the projector in this room give off?

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

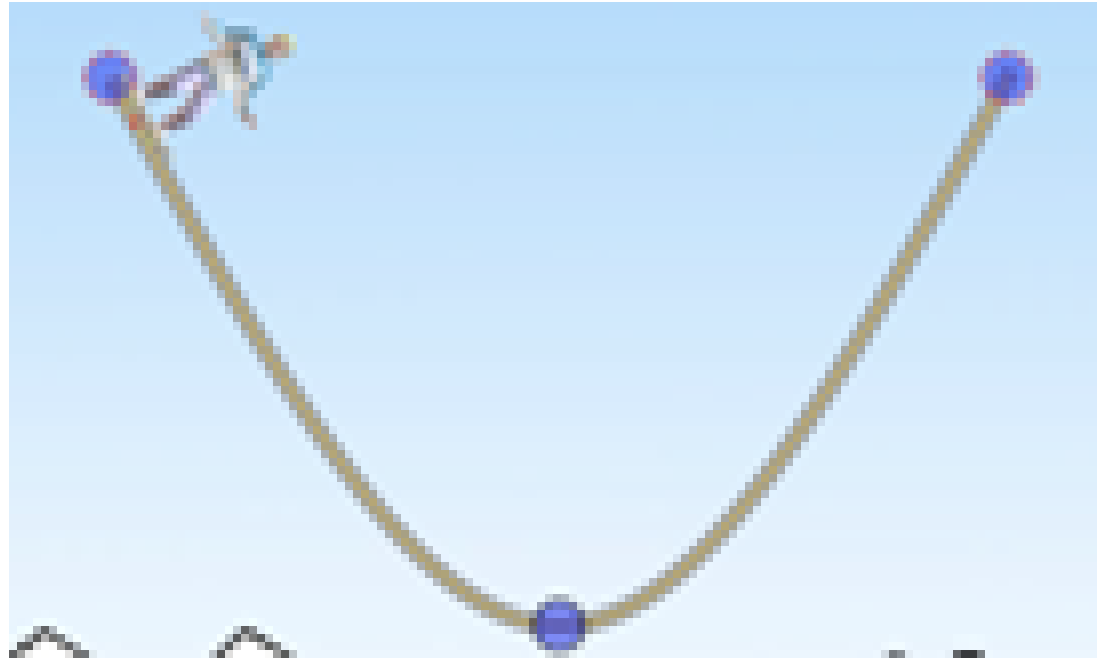
Kinetic and Potential Energy



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

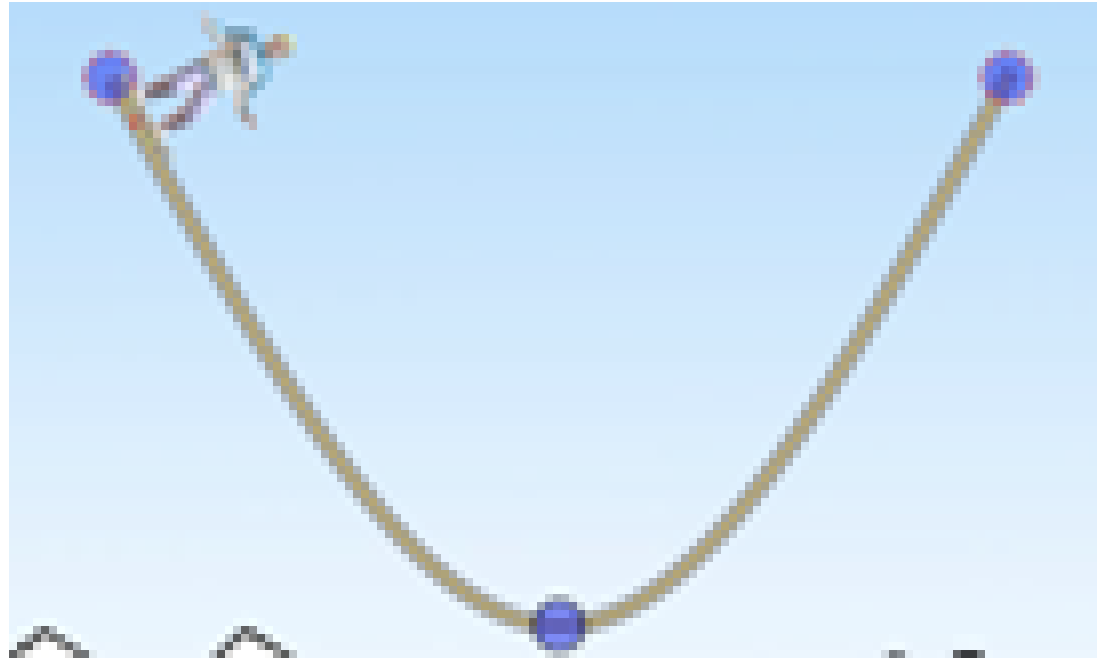


1. If the skater starts at rest at this point, what kind of energy does he have?



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

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



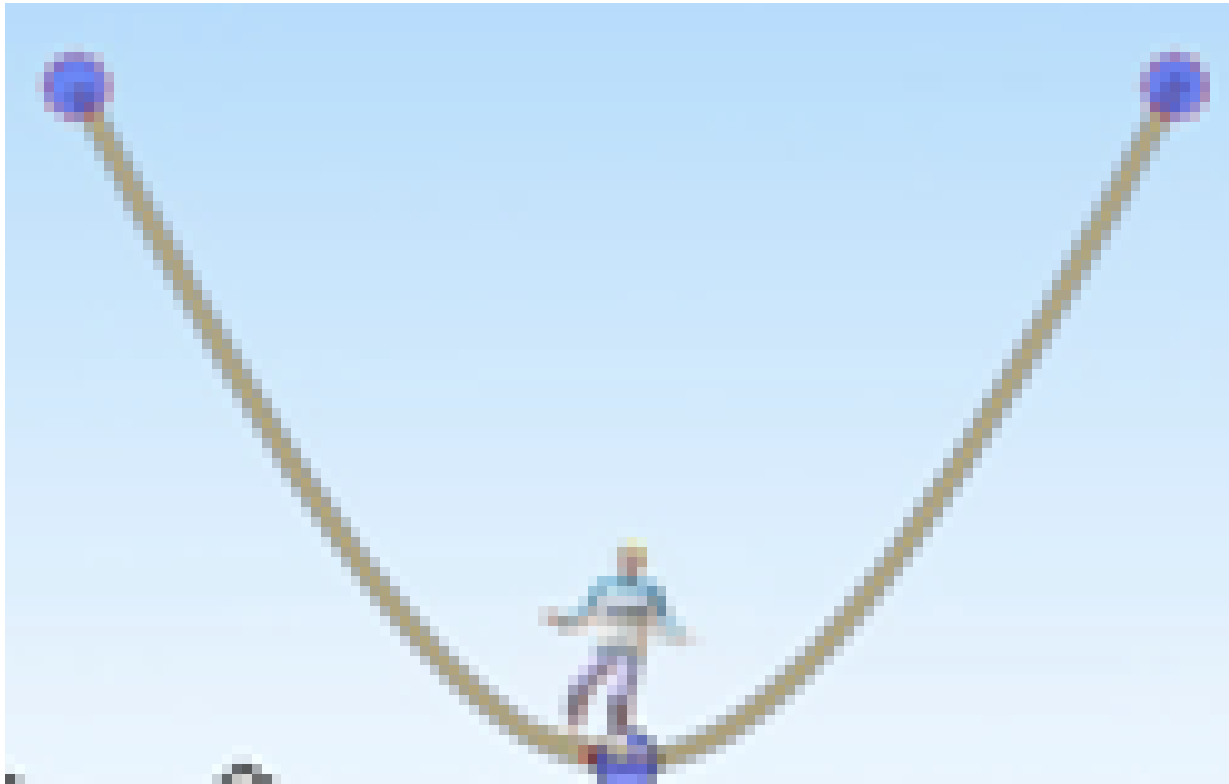
- A. Electrical
- B. Kinetic
- C. Gravitational Potential**
- D. None

2. How about at the bottom?



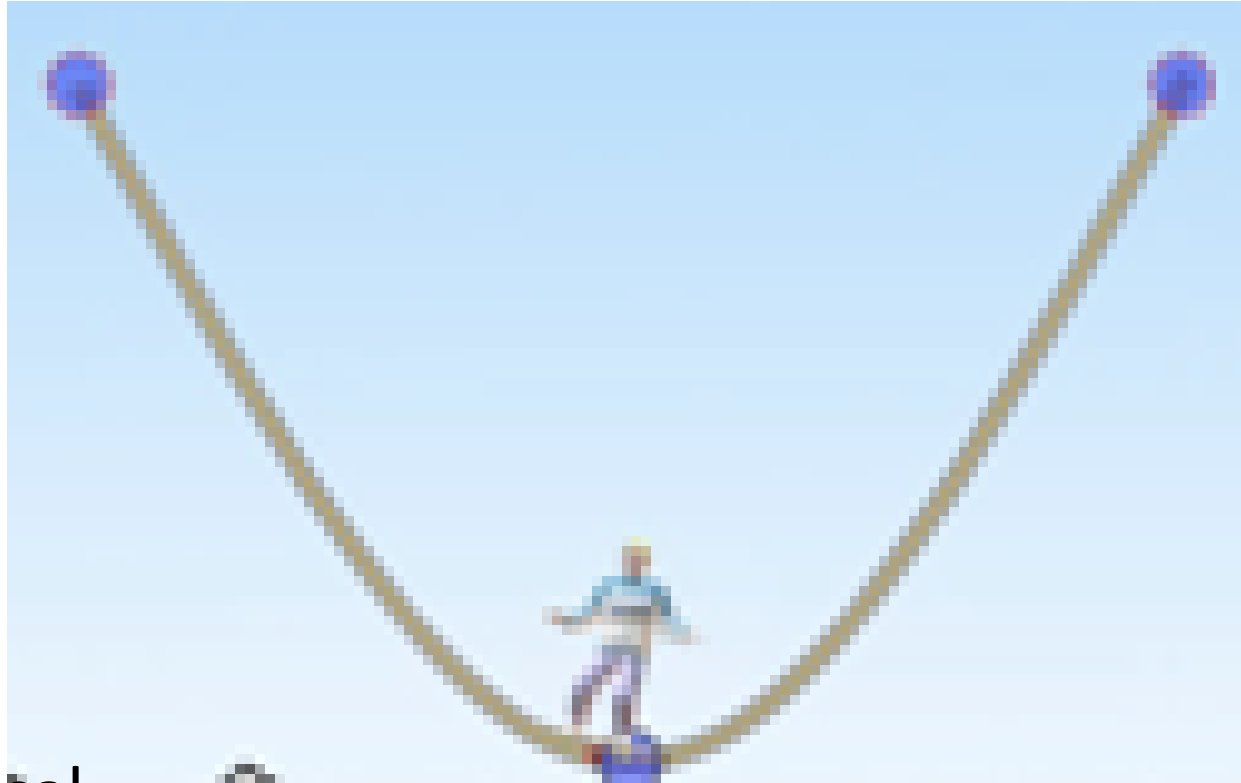
- A. Electrical
- B. Kinetic
- C. Gravitational Potential
- D. None

2. How about at the bottom?



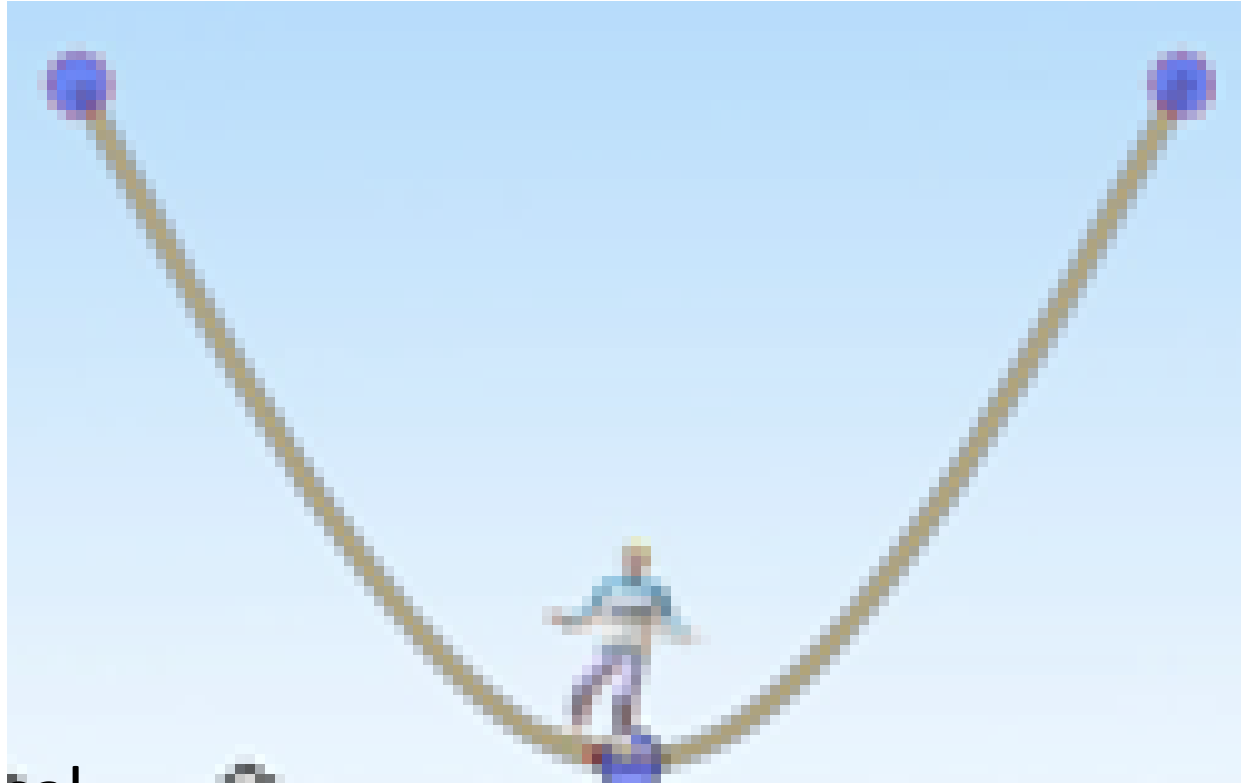
- A. Electrical
- B. Kinetic**
- C. Gravitational Potential
- D. None

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

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



A. Electrical

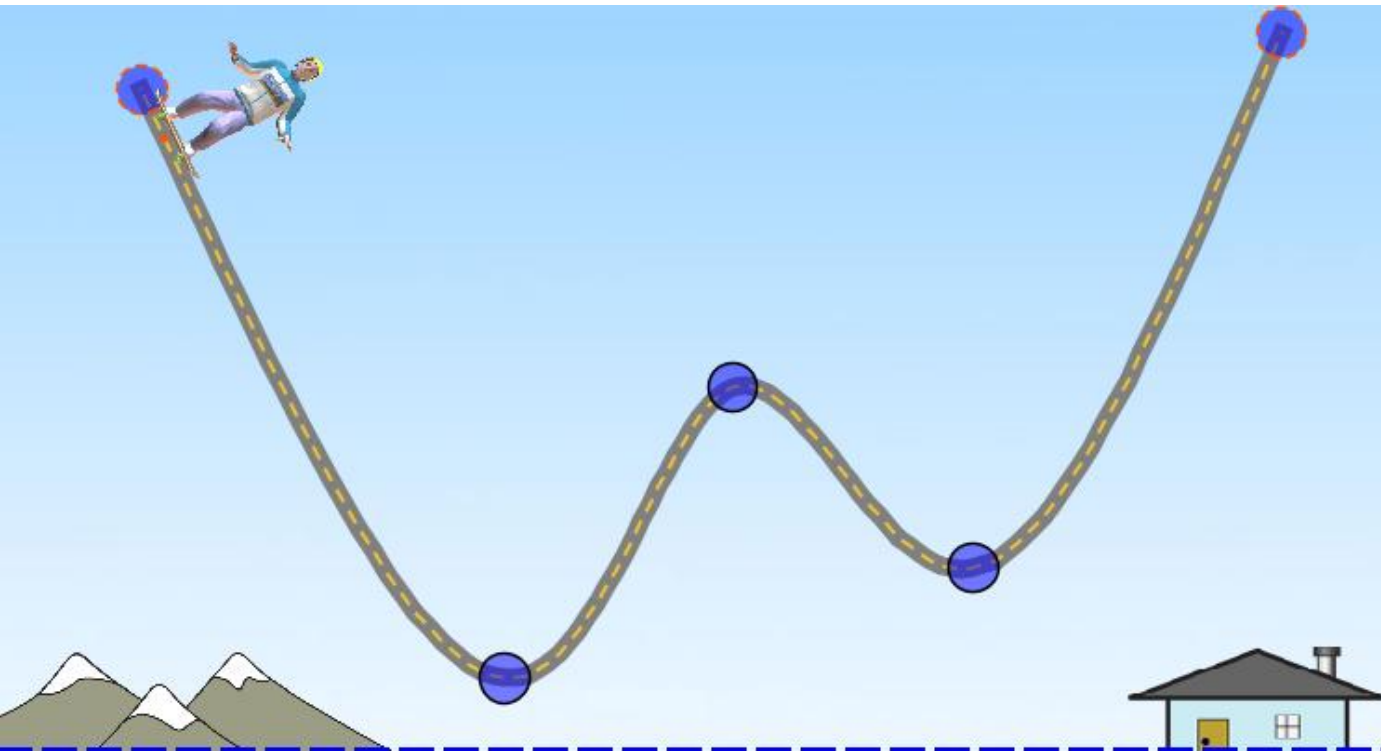
B. Kinetic

C. Gravitational Potential

D. None

Energy Form

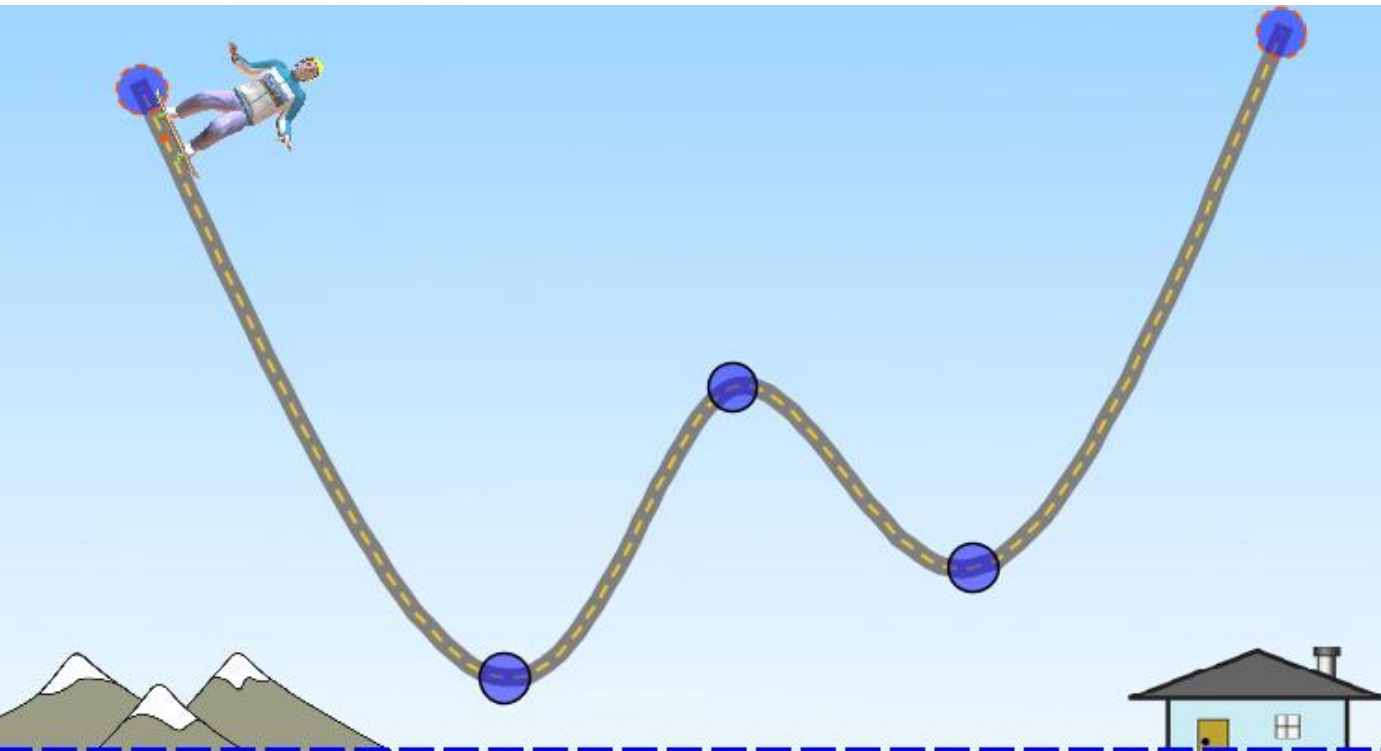
If the skater is released from rest at the point shown, what kind of energy does he have? Friction is off.



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

Energy Form

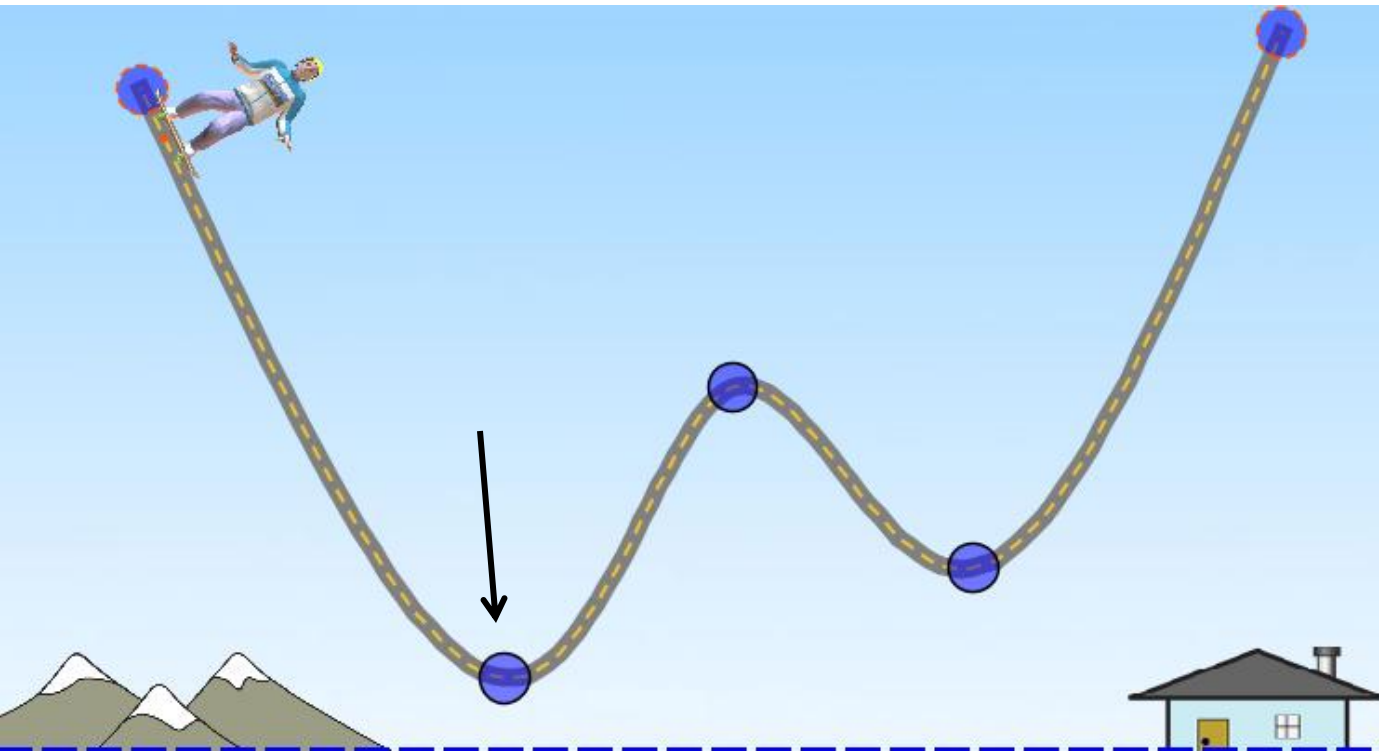
If the skater is released from rest at the point shown, what kind of energy does he have? Friction is off.



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

Energy Form

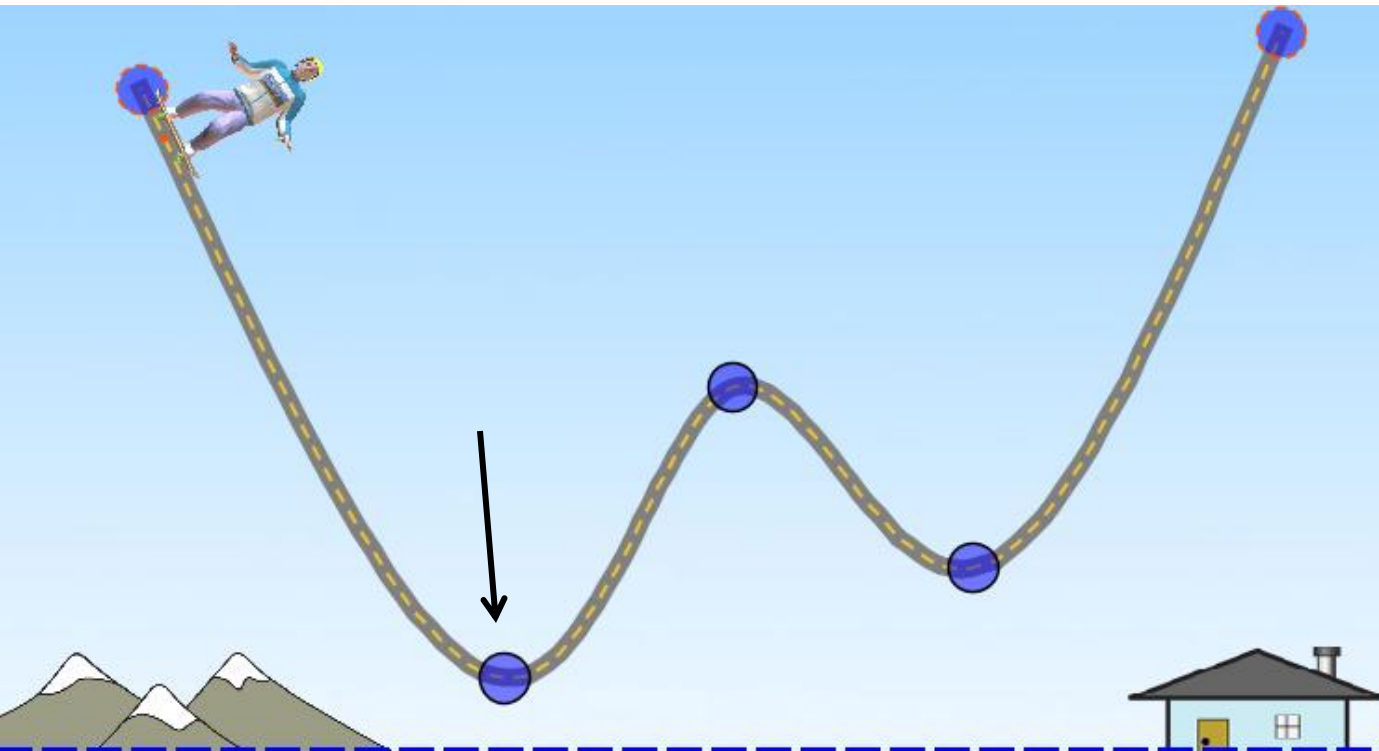
At the second blue dot, what kind of energy does he have?



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

Energy Form

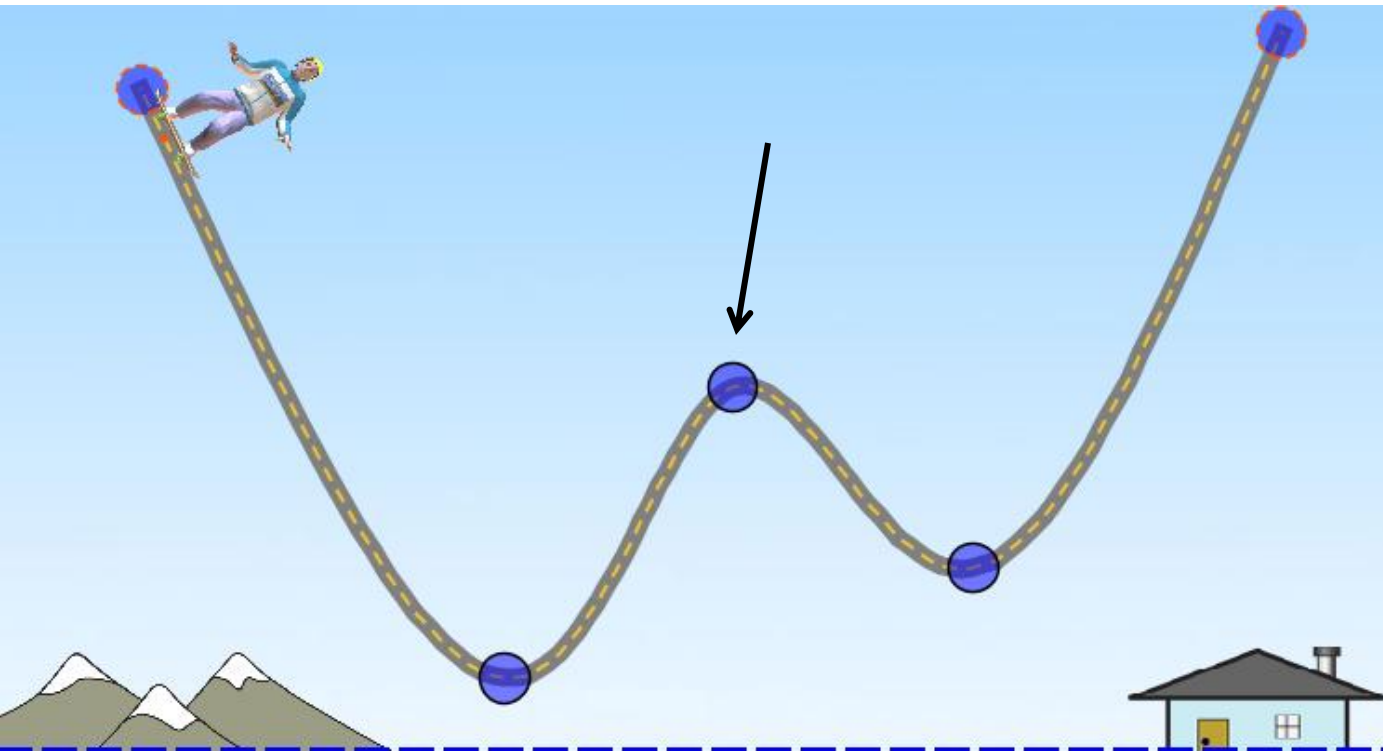
At the second blue dot, what kind of energy does he have?



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

Energy Form

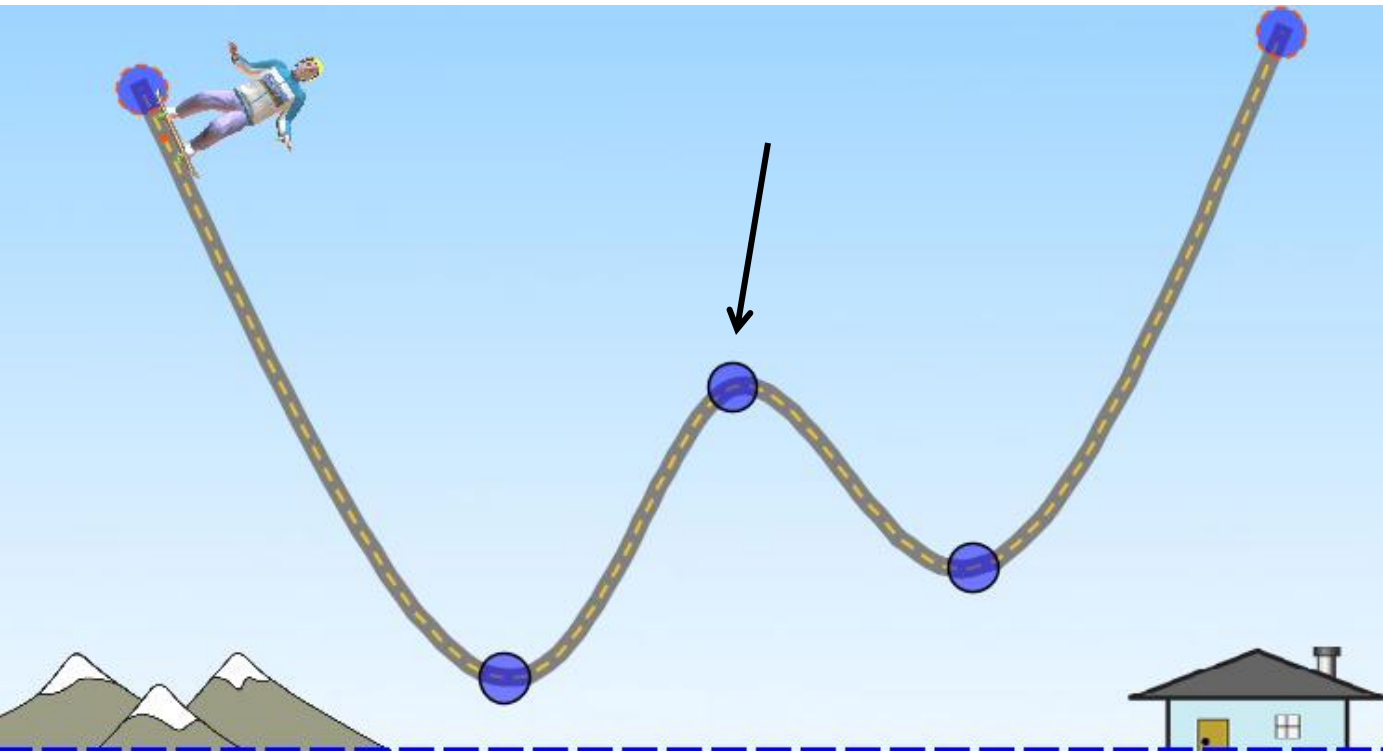
At the third blue dot, what kind of energy does he have?



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

Energy Form

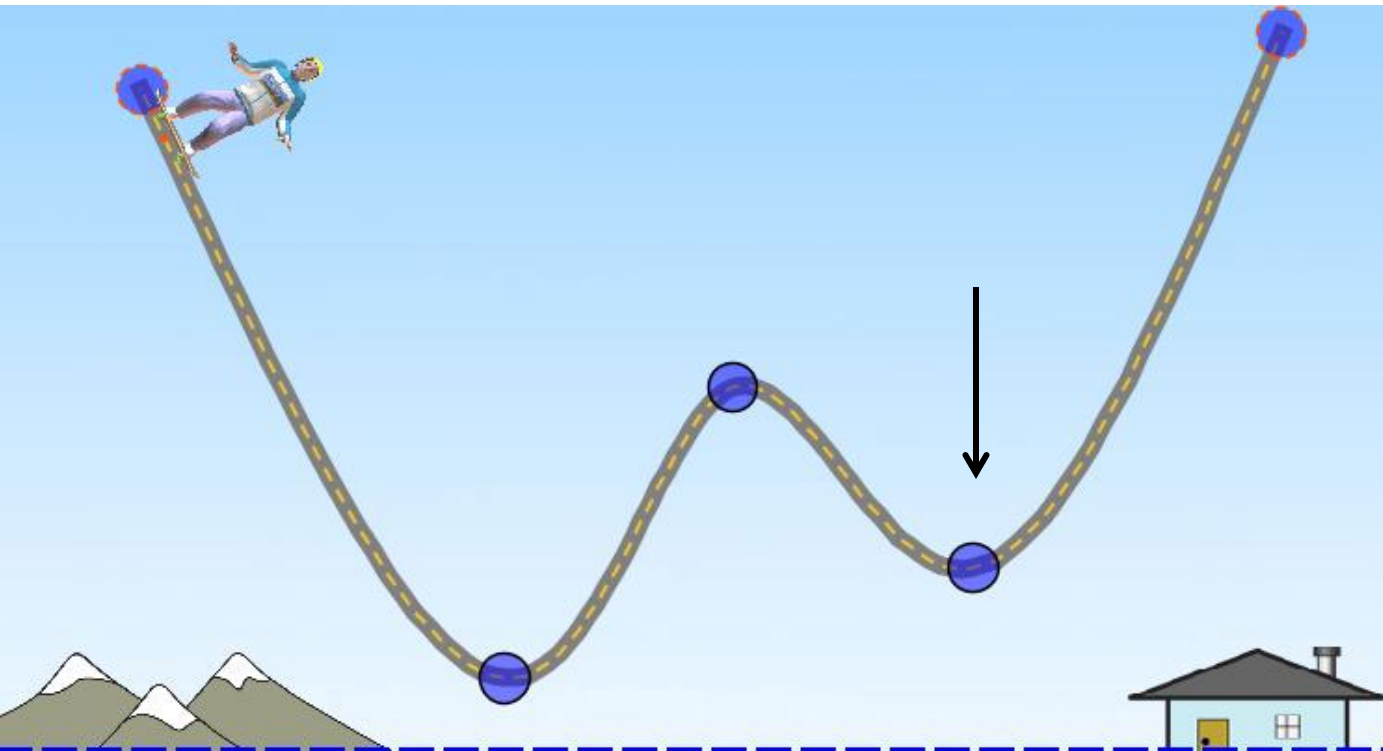
At the third blue dot, what kind of energy does he have?



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

Energy Form

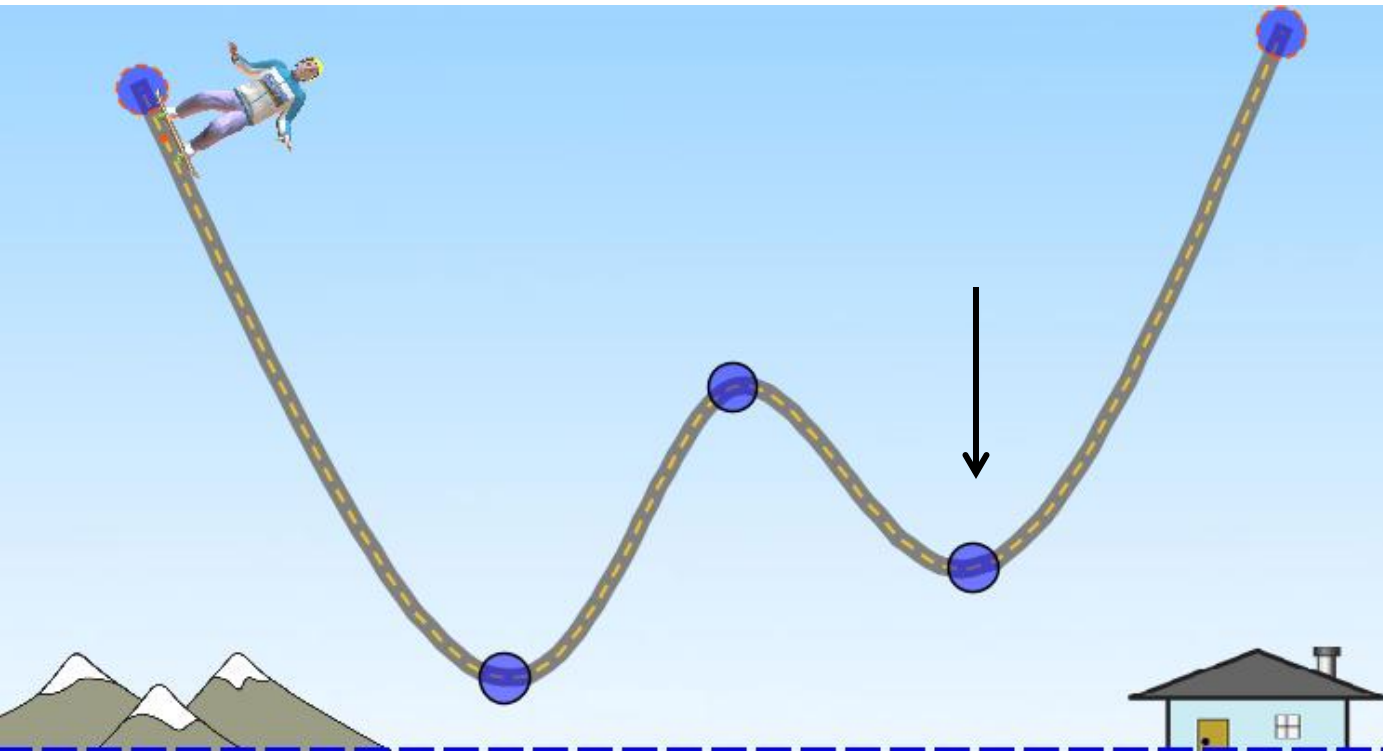
At the fourth blue dot, what kind of energy does he have?



- A. Kinetic
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- D. Kinetic and
Grav.
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- E. He won't get there.

Energy Form

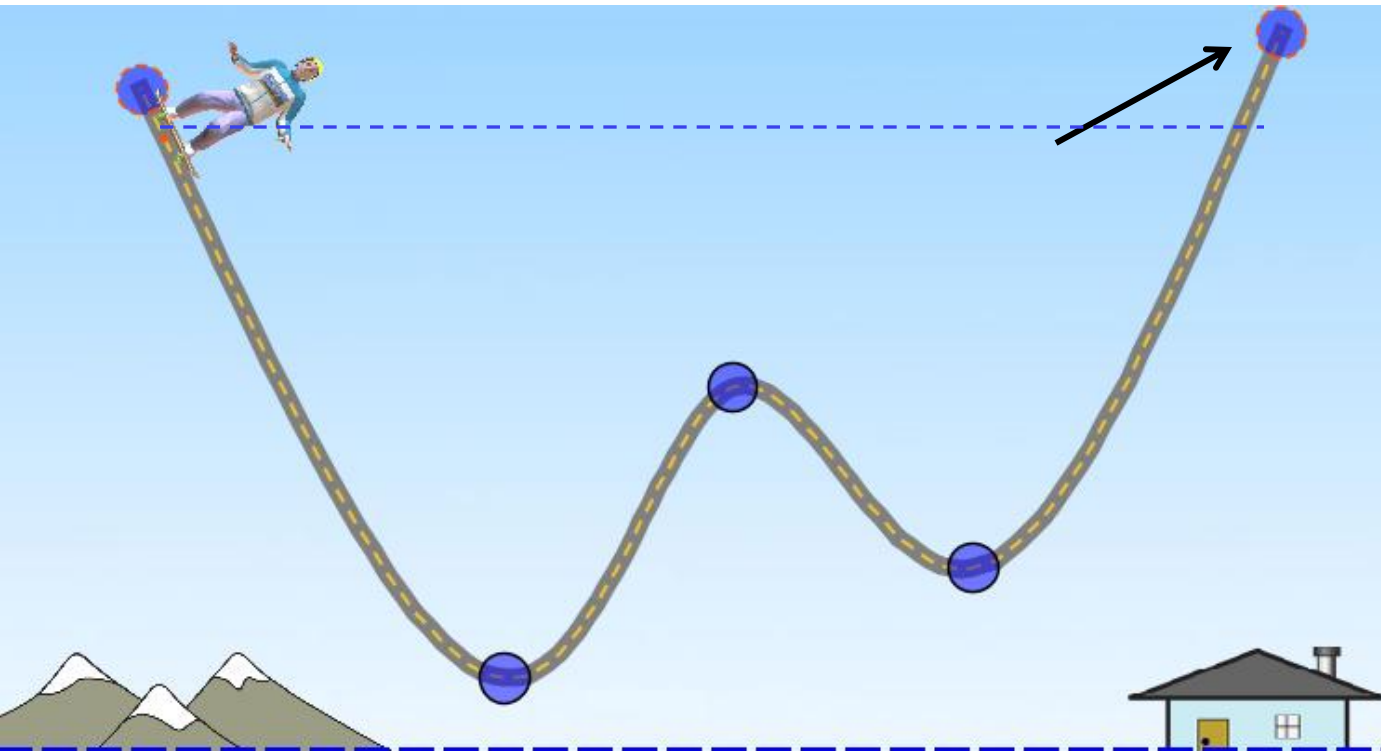
At the fourth blue dot, what kind of energy does he have?



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

Conservation of mechanical energy

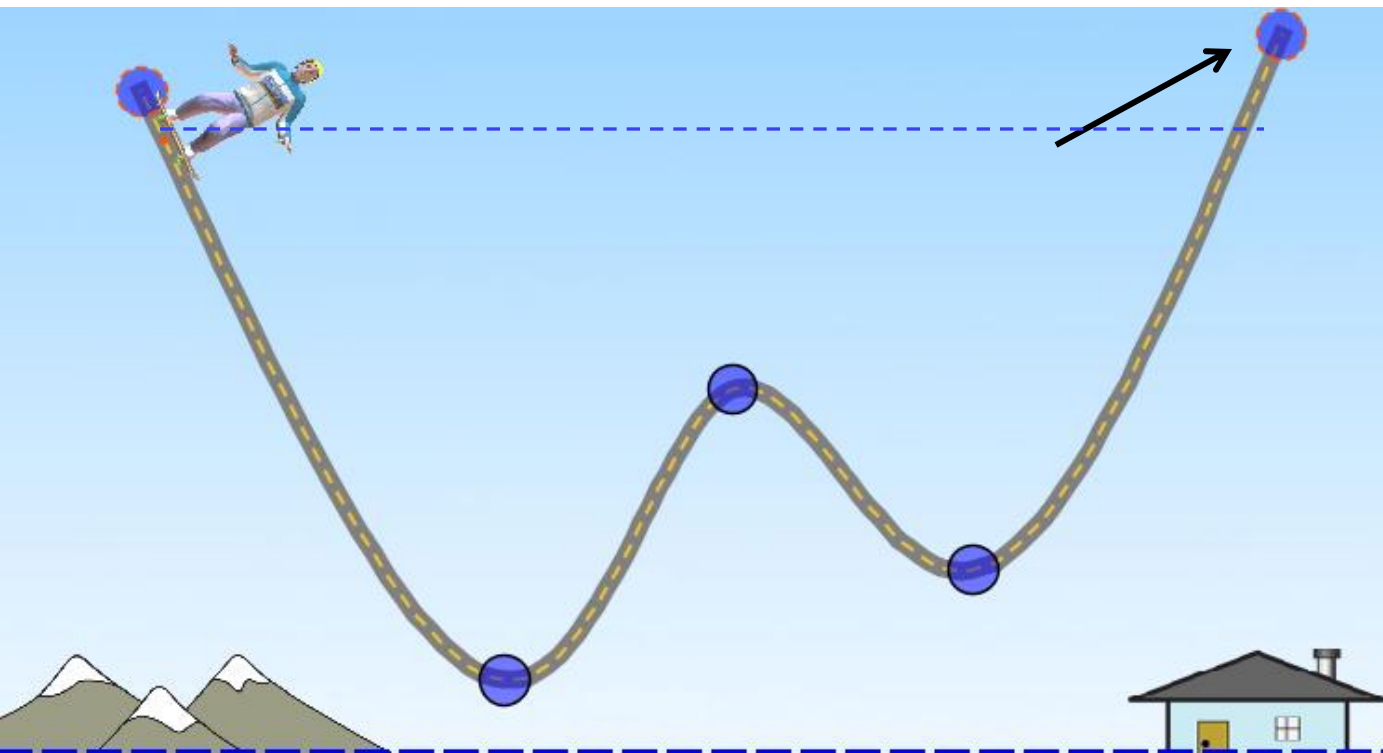
At the fifth blue dot, what kind of energy does he have?



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

Conservation of mechanical energy

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



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