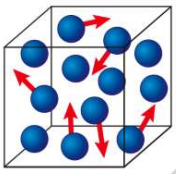
Energy and energy resources

Sci G

Name _____ Class _____ Date _____

1 What is the correct statement about **energy**?



A energy can be destroyed
B energy can be created
C energy cannot change forms
D energy cannot be destroyed or created

2 Use the formulas below to calculate the power (in Joules/minute) used by the tow truck. The tow truck must tow 1,000 newtons for 10 meters over a span of 30 minutes.

work = force x distance
power = work / time

A 1030.3 Joules/minute
B 40.33 Joules/minute
C 333.33 Joules/minute
D 300.33 Joules/minute

3 Use the diagram below to answer the following question. The skier at the top of the hill with the **greatest** amount of potential energy is the **larger** skier.

True or false?

A true

4 According to the graph below, as height decreases, the kinetic energy increases. At the bottom of the hill, what has happened to the skier's **potential** energy?

A it increased
B it decreased
C it stayed the same

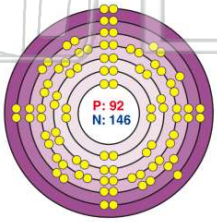
5

7

more kinetic energy
B heavier ball has more kinetic energy
C lighter ball has more potential energy
D energy is the same regardless of mass

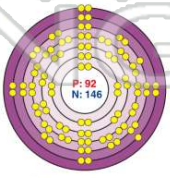
B it causes more air pollution than the use of nuclear power
C it uses up all the dinosaur fossils that we have
D it is used to create energy out of rocks

9 The **process** of **splitting the nuclei** of radioactive elements to release energy is called _____.



A nuclear energy
B nuclear fusion
C nuclear fission
D nuclear explosion

10 Nuclear **fusion** produces energy through the process of _____.



A breaking up certain radioactive atoms
B combining certain radioactive atoms
C breaking up certain fossil fuels
D combining certain fossil fuels

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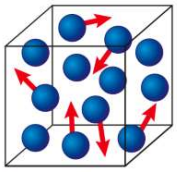
ANSWER KEY

What is the correct statement about **energy**?



A energy can be destroyed
B energy can be created
C energy cannot change forms
D energy cannot be destroyed or created

d

Use the formulas below to calculate the power (in Joules/minute) used by the tow truck. The tow truck must tow 1,000 newtons for 10 meters over a span of 30 minutes.

work = force x distance

$$\text{power} = \frac{\text{work}}{\text{time}}$$

A 1030.3 Joules/minute
B 40.33 Joules/minute
C 333.33 Joules/minute
D 300.33 Joules/minute

c

Use the diagram below to answer the following question. The skier at the top of the hill with the **greatest** amount of potential energy is the **larger** skier.
True or false?

A true
B false

a

According to the graph below, as height decreases, the kinetic energy increases. At the bottom of the hill, what has happened to the skier's **potential** energy?

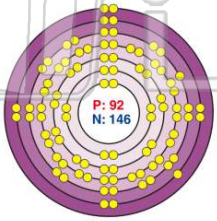
A it increased
B it decreased
C it stayed the same
D it is now higher than the kinetic

b

B heavier ball has more kinetic energy
C lighter ball has more potential energy
D energy is the same regardless of mass

nuclear power
C it uses up all the dinosaur fossils that we have
D it is used to create energy out of rocks

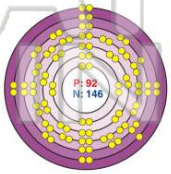
The **process** of **splitting the nuclei** of radioactive elements to release energy is called _____.



A nuclear energy
B nuclear fusion
C nuclear fission
D nuclear explosion

c

Nuclear **fusion** produces energy through the process of _____.



A breaking up certain radioactive atoms
B combining certain radioactive atoms
C breaking up certain fossil fuels
D combining certain fossil fuels

b