

# ENERGY, MOTION AND FORCES REVIEW

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Answer questions on your whiteboard and when prompted, show the teacher.

On your paper, write the topics you miss in order to study them tonight.

# 1) KINETIC ENERGY INCREASES AS THE VELOCITY OF A CAR DECREASES

- True or False

False

Study changes between kinetic and potential energy



## 2) ENERGY TRANSFERS ARE WHEN ENERGY CHANGES FROM ONE TYPE TO ANOTHER.

- True or False
- False
- Study energy transfers & transformations



### 3) A SLINGSHOT CONTAINS WHAT TYPE OF ENERGY?

- A) Gravitational potential energy
- B) Kinetic Energy
- C) Elastic potential energy
- D) Chemical potential energy

C

Study types of potential energy



# 4) THE COMBINATION OF POTENTIAL AND KINETIC ENERGY WHEN A BOWLING BALL HITS THE PINS IS WHICH TYPE OF ENERGY?

- A) Sound
- B) Thermal
- C) Mechanical
- D) Radiant



C

Study mechanical energy

## 5) A ROCK IS PUSHED OFF A CLIFF AND FALLS TO THE GROUND. WHICH OF THE FOLLOWING STATEMENTS ABOUT THE ROCK IS NOT TRUE?

- A) its potential energy increases as it falls
- B) its kinetic energy is at a maximum just before it hits the ground
- C) its potential energy is at a maximum just as it leaves the cliff
- D) its kinetic energy is equal to its potential energy at a point halfway between the cliff and the ground

A

Study potential and kinetic energy changes



6) AS A BIKE SLIDES DOWN A HILL, THE SUM OF THE POTENTIAL ENERGY AND THE KINETIC ENERGY OF THE BIKE \_\_\_\_\_.

- A) will increase
- B) remain the same
- C) will decrease
- D) cannot be determined

B

Study changes between kinetic and potential energy



# 7) IF AN OBJECT IS FALLING, AT WHAT POINT IS THE KINETIC AND POTENTIAL ENERGY EQUAL?

- A) at the start of the fall
- B) at the end of the fall
- C) Halfway between the start and the end
- D) at all points of the fall

C

Study changes between kinetic and potential energy





## 8) A FIGURE SKATER SLIDES ACROSS THE ICE. WHAT MAKES THEM SLOW DOWN?

- A) they run out of juice
- B) they run out of electricity
- C) their skates rub against the ice
- D) their weight causes them to slow down

C

Study friction



# 9) ON WHICH SURFACE WILL A BALL TRAVEL THE FURTHEST?

- A) carpet
- B) sandpaper
- C) ice
- D) polished wood floors

C

Study friction



# 10) WHICH EXAMPLE IS A WAY TO INCREASE FRICTION?

- A) Putting salt on icy roads
- B) Waxing the underside of a surfboard
- C) Putting oil on a door hinge
- D) Spraying car wheels with water

A

Study friction



# 11) FOOD IS AN EXAMPLE OF WHAT TYPE OF ENERGY?

- A) chemical energy
- B) radiant energy
- C) thermal energy
- D) elastic potential energy

A

Study types of potential energy



# 12) WHAT IS THE ABILITY TO CAUSE CHANGE?

- Energy

Study Chapter  
vocab

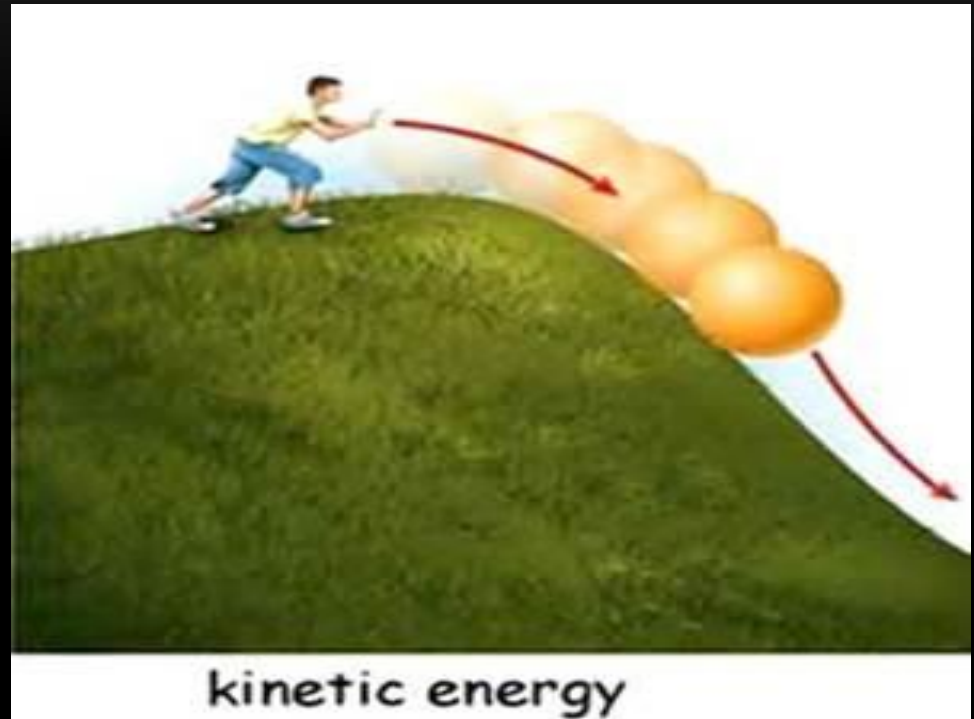


# 13) KINETIC ENERGY IS BASED UPON \_\_\_\_ AND

\_\_\_\_\_.

- Speed and Mass

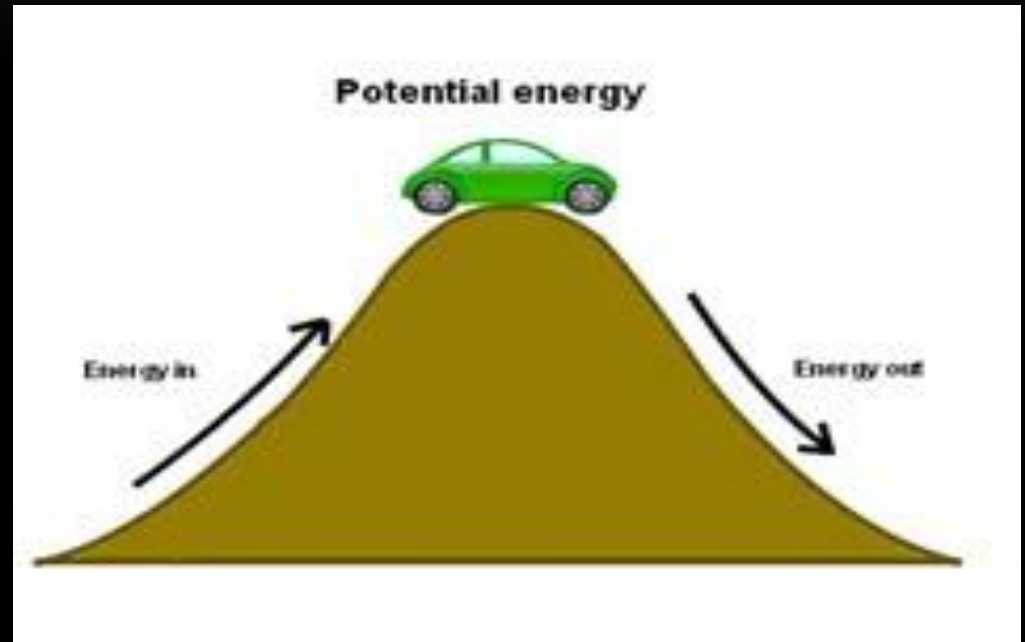
Study kinetic energy



# 14) POTENTIAL ENERGY OF AN OBJECT IS BASED ON ITS \_\_\_\_\_ AND \_\_\_\_\_.

- Mass and Height

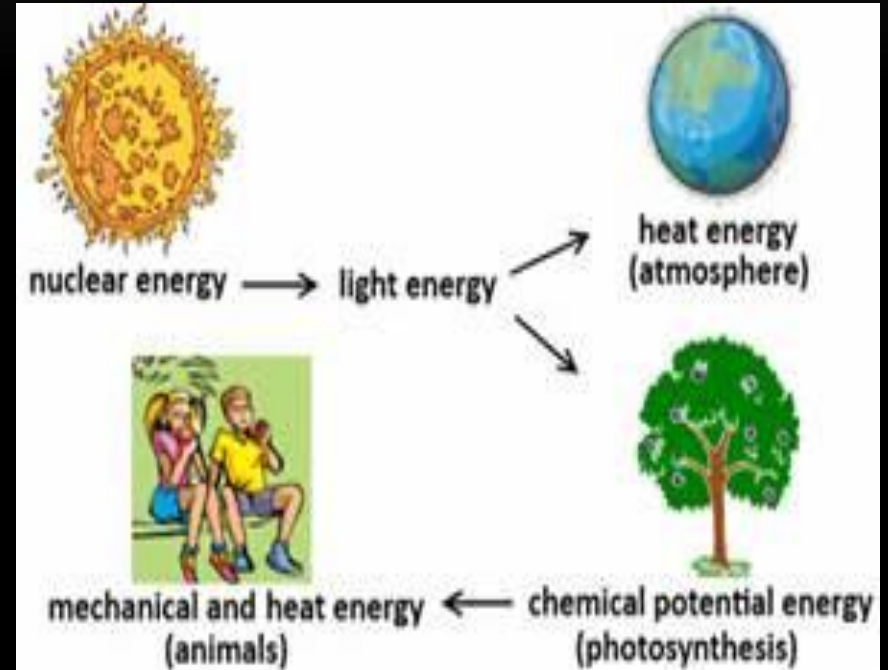
Study potential energy



# 15) WHAT STATES THAT ENERGY CANNOT BE CREATED NOR DESTROYED, BUT IT CAN CHANGE FORM?

- The law of conservation of energy

Study the law of conservation of energy





16) THE RESISTANCE THAT RESULTS FROM PUTTING BRAKES ON A BICYCLE IS CALLED \_\_\_\_\_.

- Friction

Study Friction



# 17) ACCORDING TO THE LAW OF CONSERVATION OF ENERGY, ENERGY CAN BE CREATED AND DESTROYED

- True or false
- False
- Study the Law of Conservation of Energy



# 18) TENNIS SHOES SLIDE EASILY ON CONCRETE DUE TO FRICTION

- True or False

False

- Study Friction



# 19) A BALLOON STUCK IN A TREE HAS \_\_\_\_\_ ENERGY.

- A) Kinetic
- B) Chemical
- C) Thermal
- D) Potential

D

Study potential energy



## 20) AN EXAMPLE OF KINETIC ENERGY IS...

- A) Energy stored in an apple
- B) Energy in a moving train
- C) Energy in a table
- D) Coffee in a cup

B

Study kinetic energy



# 21) WHAT IS THE ABILITY TO PRODUCE CHANGE?

- A) Energy
- B) Movement
- C) Height
- D) Weight

A

Study Chapter vocab



## 22) WHY DOES A BALLOON FLY AROUND IF YOU LET GO AND DON'T TIE A KNOT?

- A. Gravity
- B. Speed
- C. Air Pressure
- D. Momentum

C

Study Forces

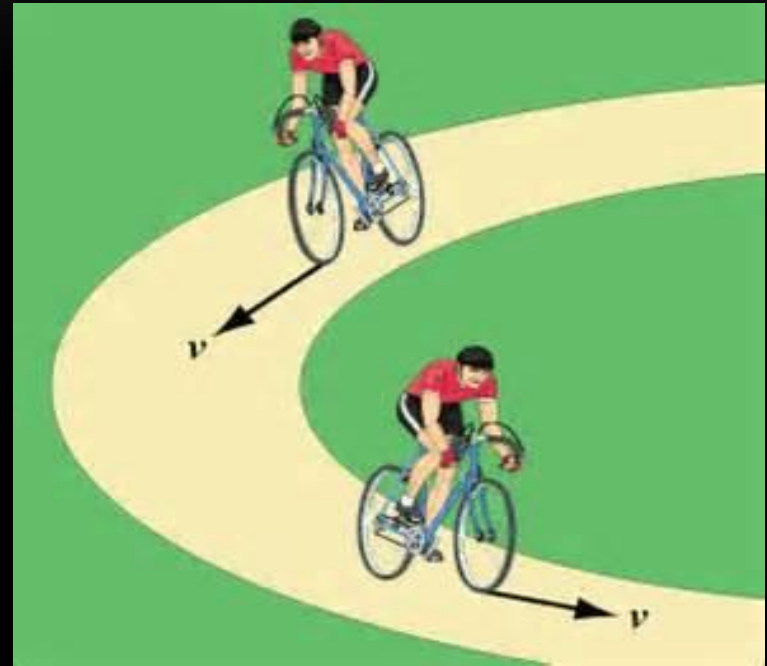


## 23) AN OBJECT THAT EXPERIENCES NEGATIVE ACCELERATION IS DOING WHAT?

- A. Turning right
- B. Slowing down
- C. Turning left
- D. Speeding up

B

Study Acceleration





24) MARY IS WALKING HER DOG AND PULLING ON THE LEASH WITH 50 N OF FORCE. THE DOG IS PULLING IN THE OPPOSITE DIRECTION WITH 60 N OF FORCE. WHICH TYPE OF FORCE IS BETWEEN MARY AND HER DOG?

- A. Gravitational force
- B. Magnetic Force
- C. Balanced Force
- D. Unbalanced Force

D

Study balanced and unbalanced forces

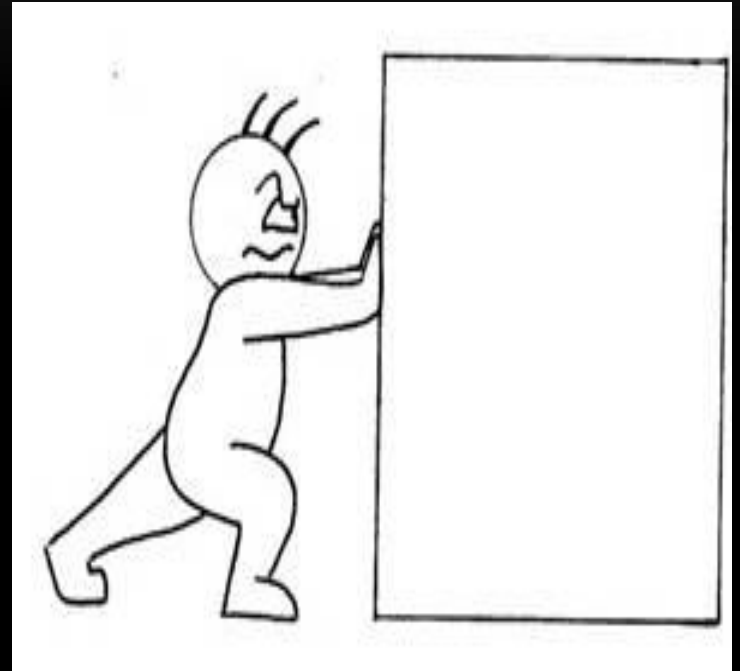


# 25) WHAT TYPE OF FORCE IS NEEDED FOR ACCELERATION TO OCCUR?

- A. Balanced Force
- B. Unbalanced Force
- C. Gravitational Force
- D. May the force be with you

B

Study Balanced & Unbalanced forces



# 26) THE FORCE THAT SLOWS DOWN MOTION BETWEEN TWO TOUCHING OBJECTS IS CALLED

\_\_\_\_\_.

- A. Friction
- B. Gravity
- C. Mass
- D. Magnetism

A

Study Forces



27) WHEN TWO FORCES ARE EQUAL AND PUSHING AGAINST EACH OTHER IT IS CALLED

\_\_\_\_\_.

- A. a frictional force
- B. a balanced force
- C. stored energy
- D. an unbalanced force

B

Study balanced and unbalanced forces



## 28) WHICH OF THE FOLLOWING IS A NONCONTACT FORCE?

- A. Speed
- B. Gravity
- C. Pulling
- D. Pushing

B

Study Contact and Noncontact Forces



## 29) GRAVITATIONAL FORCE DEPENDS ON.....

- A. Mass and Height
- B. Mass and Weight
- C. Speed and Mass
- D. Mass and Distance

D

Study Gravity



# 30) THERE IS A GRAVITATIONAL FORCE BETWEEN YOU AND YOUR PENCIL. WHY DON'T YOU FEEL IT?

- A. You are too far away from the pencil
- B. The pencil is a contact force
- C. The mass of the pencil is much smaller than the mass of Earth
- D. You are too close to the pencil

C

Study Gravity



# 31) WHAT IS A PUSH OR PULL EXERTED ON AN OBJECT?

- A. Force
- B. Mass
- C. Speed
- D. Direction

A

Study Force





# 32) A BOY IS PULLING A WAGON DOWN THE STREET, WHICH TYPE OF FORCE IS THIS?

- A. Contact
- B. Noncontact

A

Study Types of Forces



# 33) LEAVES FALL TO THE GROUND IN THE FALL. WHICH TYPE OF FORCE IS THIS?

- A. Contact
- B. Noncontact

B

Study Types of Forces



34) A COMPASS NATURALLY ALIGNS ITSELF WITH EARTH'S MAGNETIC FIELD. THIS IS WHICH TYPE OF FORCE?

- A. Contact
- B. Noncontact

B

Study Types of Forces



# 35) A BASEBALL PLAYER HITS A GRAND SLAM. WHICH TYPE OF FORCE IS THIS?

- A. Contact
- B. Noncontact

A

Study Types of Forces

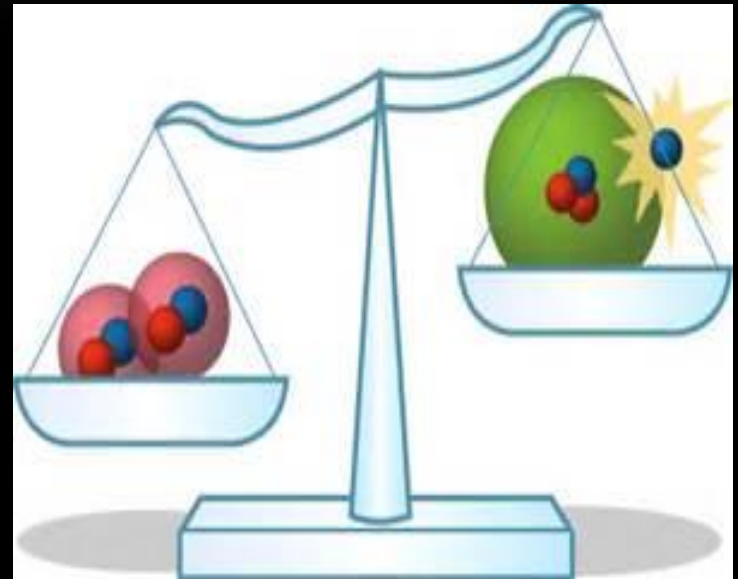


## 36) MASS DEPENDS ON \_\_\_\_\_.

- A. The amount of material that make up an object
- B. Gravitational Pull
- C. Weight
- D. Distance

A

Study Mass and Weight



# 37) WEIGHT DEPENDS ON \_\_\_\_\_.

- A. Distance
- B. Gravitational Force
- C. The amount of material making up an object
- D. Both B & C

D

Study Weight & Mass

