Energy and Energy Transformation Task Cards

Includes the following:

-Forms of Energy

-Potential and Kinetic

-Conduction, Convection, and Radiation

-Energy Transformations

Energy and Energy Transformations

1

Describe MECHANICAL ENERGY and identify one example.

Energy and Energy Transformations

2

Describe RADIANT ENERGY and identify one example.

Energy and Energy Transformations

3

Describe CHEMICAL ENERGY and identify one example.

Energy and Energy Transformations

4

Describe ELECTRICAL ENERGY and identify one example.

Energy and Energy Transformations

5

Describe NUCLEAR ENERGY and identify one example.

Energy and Energy Transformations

6

Describe THERMAL ENERGY and identify one example.

Energy and Energy Transformations

7

Describe SOUND ENERGY and identify one example.

Energy and Energy Transformations

8

Describe POTENTIAL ENERGY and identify one example.

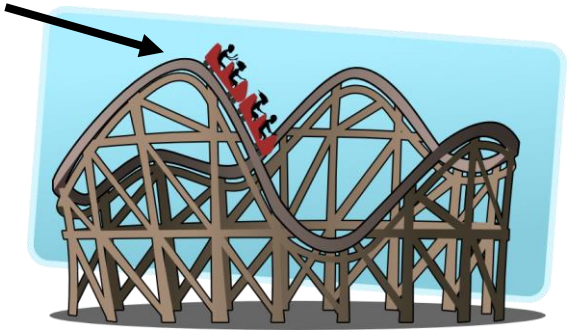
Energy and Energy Transformations

9

Describe KINETIC ENERGY and identify one example.

Energy and Energy Transformations

10



What type of energy would be represented at the top of a rollercoaster track?

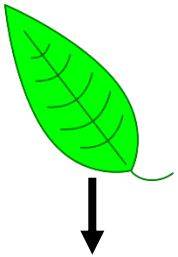
Energy and Energy Transformations

11

What type of energy would be represented near the bottom of a rollercoaster track?

Energy and Energy Transformations

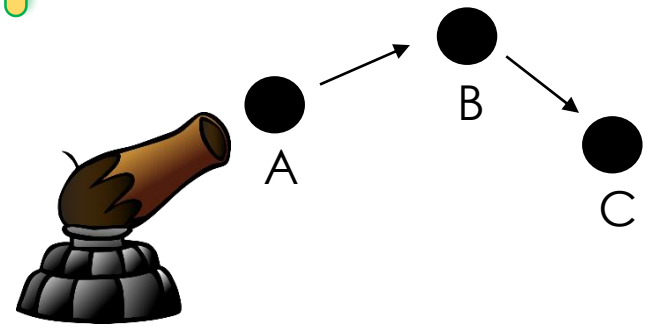
12



What energy conversion takes place as a leaf falls to the ground?

Energy and Energy Transformations

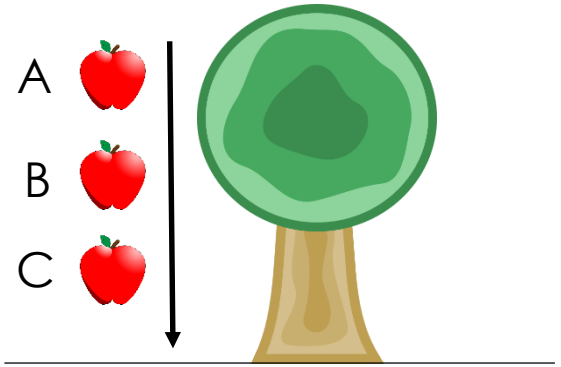
13



At which point will the cannonball have the greatest amount of POTENTIAL ENERGY?

Energy and Energy Transformations

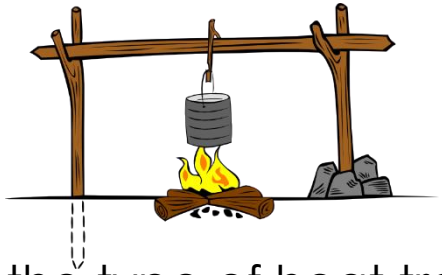
14



At which point will the apple have the greatest amount of KINETIC ENERGY?

Energy and Energy Transformations

15

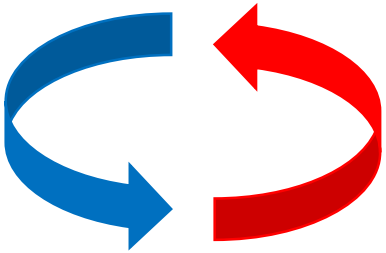


Identify the type of heat transfer in the picture above.

A. Conduction B. Convection
C. Radiation

Energy and Energy Transformations

16

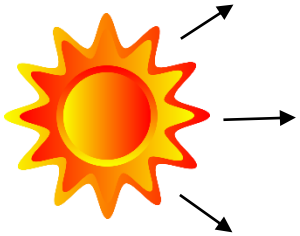


Identify the type of heat transfer in the picture above.

A. Conduction B. Convection
C. Radiation

Energy and Energy Transformations

17



Identify the type of heat transfer in the picture above.

A. Conduction B. Convection
C. Radiation

Energy and Energy Transformations

18

Identify the type of heat transfer used by a hot air balloon.

A. Conduction B. Convection
C. Radiation

Energy and Energy Transformations

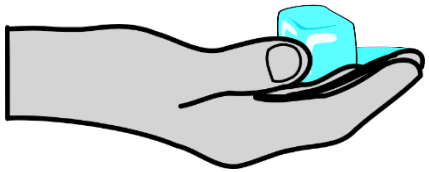
19

Identify the type of heat transfer used by a microwave.

A. Conduction B. Convection
C. Radiation

Energy and Energy Transformations

20



Identify the type of heat transfer that causes ice to melt in a person's hand.

A. Conduction B. Convection
C. Radiation

Energy and Energy Transformations

21

What is ENERGY? What is an ENERGY TRANSFORMATION?

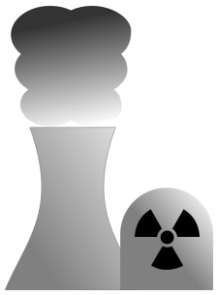
Energy and Energy Transformations

22

What does the LAW OF CONSERVATION OF ENERGY state?

Energy and Energy Transformations

23



Identify the energy transformations that occur in a nuclear power plant.

Energy and Energy Transformations

24

Identify the energy transformations that occur in a solar panel.

Energy and Energy Transformations

25

Identify the energy transformations that occur in a flashlight.

Energy and Energy Transformations

26

Identify the energy transformations that occur in a car.

Energy and Energy Transformations

27

Identify the energy transformations that occur in a television.

Energy and Energy Transformations

28

Identify the energy transformations that occur in a camp fire.

Energy and Energy Transformations

29

Identify the energy transformations that occur in a blender.

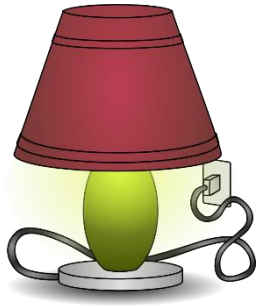
Energy and Energy Transformations

30

Identify the energy transformations that occur in a car.

Energy and Energy Transformations

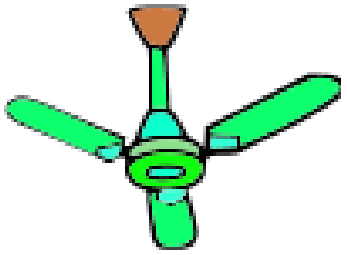
31



Identify the energy transformations that occur in a lamp.

Energy and Energy Transformations

32



Identify the energy transformations that occur in a ceiling fan.

Name: _____ Date: _____

Energy and Energy Transformations: Task Card Answer Sheet

1.	9.	17.	25.
2.	10.	18.	26.
3.	11.	19.	27.
4.	12.	20.	28.
5.	13.	21.	29.
6.	14.	22.	30.
7.	15.	23.	31.
8.	16.	24.	32.

Energy and Energy Transformations:
Answer Key

1. Energy of motion or position (ex. running or water at top of waterfall)	9. Energy of motion (ex. flowing water)	17. C	25. Chemical to Electrical to Radiant (light)
2. Energy of light (ex. light bulb)	10. Potential energy	18. B	26. Chemical to Mechanical and Thermal
3. Energy stored in the bonds of molecules (ex. battery)	11. Kinetic energy	19. C	27. Electrical to Sound and Radiant (light)
4. Energy of moving electrons/electric charges (ex. kitchen appliances)	12. Potential to kinetic energy	20. A	28. Chemical to Thermal and Radiant (light)
5. Energy locked in the nucleus of an atom (ex. Sun)	13. B	21. Energy- the ability to do work; Energy Transformation- changing energy from one form to another	29. Electrical to Mechanical and Sound
6. Energy of heat (ex. oven)	14. C	22. Energy cannot be created or destroyed; it can be transformed from one form to another	30. Mechanical to Sound
7. Energy from vibrations in matter (ex. voices)	15. A	23. Nuclear to Thermal to Electrical	31. Electrical to Radiant (light) and Thermal
8. Stored energy or energy of position (ex. boulder on edge of a cliff)	16. B	24. Radiant (light) to Electrical	32. Electrical to Mechanical