JEOPARDY!

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Matter, States of Matter, Gas Laws, Phase Changes, and Thermal Energy

Double Jeopardy

Jeopardy!

Matter	Temperature	Phase Changes	Heat Transfer	Thermal Energy vs Heat
100	100	100	100	100
200	200	200	200	200
300	300	300	300	300
400	400	400	400	400
500	500	500	500	500

Temperature
$100

- Answer: The Measure of the average kinetic energy of the individual particles in an object

What is temperature?

Temperature
$200

- Answer:

  This is when its called when no more energy can be removed from matter.

What is absolute zero?

Temperature
$300

- Answer:

  Absolute zero is shown as 0 degrees on this scale

What is Kelvin?

Temperature
$400

- Answer:

  If two glasses of water are at the same temperature, the average _____ energy of the particles of the particles in each glass is the same.

  What is kinetic?

Temperature
$500

- Answer:

  The amount of energy required to raise the temperature of 1 kilogram of a substance by 1 Kelvin is called its _____?

What is specific heat?

Matter
$100

- Answer:

  Which state of matter has the LEAST thermal energy?

What is a solid?

Matter
$200

- Answer:

  Which state of matter has a definite volume but NO definite shape?

What is a liquid?

Matter
$300

- Answer:

Two or more substances that are NOT chemically combined.

What is a mixture?

Matter
$400

- Answer:

  The higher the viscosity of a fluid, the _____ it flows.

  What is slower?

Matter
$500

Answer:.

Name three properties of compounds that make it different from a mixture.

What are

1) Specific ratio
2) 2 or more elements
3) Elements are chemically combined
4) Elements combine to have new properties

Thermal Energy Vs Heat
$100

- Answer:

  This is the total energy of all the particles in a substance.

What is Thermal Energy?

Thermal Energy Vs Heat
$200

- Answer:

  This is the movement of energy from a warmer object to a cooler object.

What is heat?

Thermal Energy Vs Heat
$300

- Answer:

  The more thermal energy a substance has, the more _____ it has.

What are particles?

Thermal Energy Vs Heat
$400

- Answer:
  Heat is measure in a unit called _____ .

What joules?

Thermal Energy Vs Heat
$500

- Answer:

  A jar of HOT green water is placed into an aquarium full of COLD water. The HOT green water begins to rise out of the jar to the top of the aquarium, spread out, and fall back down. Name the type of heat transfer.

  What is convection?

Phase Changes
$100

- Answer:

HEY HOT SHOT! You receive $500 free!

Phase Changes
$200

- Answer:

  Solid to Gas.

What is Sublimation?

Phase Changes
$300

- Answer:

  Fog on a mirror.

What is Condensation?

Phase Changes
$400

- Answer:
  Two types of vaporization.

What are evaporation and boiling?

Phase Changes
$500

- Answer:

  When a substance's thermal energy changes by a sufficient amount, it _____.

  What is changes state?

Heat Transfer
$100

- Answer:

  Heat is transferred from one particle of matter to another without the movement of matter itself in a process called.

  What conduction?

Heat Transfer
$200

- Answer:
  A turtle laying on a rock in the sun.

What is radiation?

Heat Transfer
$300

- Answer:
  This is the transfer of energy by electromagnetic waves.

What is radiation?

Heat Transfer
$400

- Answer:

  This is an object that controls heat flow.

What is an insulator?

Heat Transfer
$500

- Answer:
  A hair dryer.

What is convection?

Final Jeopardy

Double Jeopardy!

Gas Laws	Heat and Thermal Energy
200	200
400	400
600	600
800	800
1000	1000

Gas Laws
$200

- Answer:
- Which law states when temperature of a gas increases at a constant pressure, its volume also increases and when the temperature is decreased, its volume also decreases .

What is a Charles Law?

Gas Laws
$400

- Answer:

  Which gas law states when pressure of a gas increases at a constant temperature, the volume of the gas decreases? When pressure decreases, the volume increases.

What is Boyles Law?

Gas Laws
$600

- Answer:
  DAILY DOUBLE! 1000 BUCKS FOR YOU!

Gas Laws
$800

- Answer:

  When temperature of a gas is increased, the pressure of the gas is _____.

What is increased?

Gas Laws
$1000

- Answer:

  What 3 factors affect the density of a gas?

  What are temperature, volume, and pressure?

Heat and Thermal Energy
$200

- Answer:

  Which is an example of thermal expansion: A Thermometer, a Refrigerator, or a Toaster?

  What is a thermometer?

Heat and Thermal Energy $400

- Answer:

  What converts thermal energy to mechanical energy?

  What is a heat engine?

Heat and Thermal Energy
$600

- Answer:

  The process in which an engine burns fuel to operate is known as _____.

What is a combustion?

Heat and Thermal Energy
$800

- Answer:
  An engine that burns fuel on the outside.

What is an external combustion engine?

Heat and Thermal Energy $1000

- Answer:

  When particles spread out and a substance expands, it is called _____.

What is a thermal expansion?

Final Jeopardy!

Short Answer: Write your answer on a sheet of paper

Short Answer

When heat flows from one substance to another, what happens to the temperature of the substance giving off the heat and to the temperature of the substance receiving the heat?

Short Answer

- The temperature of the substance giving off the heat decreases while the temperature of the substance receiving the heat increases.