

Ceres Software Corporation

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CHAPTER 03 - PROPERTIES OF MATTER

AIR: its density is 0.0013 g/cm^3

ALUMINUM: this light metal has a density of 2.7 g/cm^3

AMORPHOUS: solids that lose their shape

AMOUNT: the density of a substance does not depend on the _____ of substance present

ARGENTUM: it is the Latin name of silver

AURUM: it is the Latin name of gold

BOILING: the _____ point of hydrogen is $-252.9 \text{ }^\circ\text{C}$

BURN: paper, wood, and carbon are substances that can _____

BURNING: doing that to a substance may change its properties

CALCIUM: this element is good for the bones

CARBON: its boiling point is $4,200 \text{ }^\circ\text{C}$

CELSIUS: the boiling point of water is 100 _____ degrees

CHANGES: physical _____ do not produce new substances

CHEMICAL: these properties describe how a substance change into other new substances

CHLORINE: it helps kill bacteria in swimming pools

COLOR: a physical property

COLORS: the _____ of gold and carbon are different

COMPARE: the property of density allows us to _____ different types of matter

CONDUCTORS: they have high values of conductivity

CONTAINERS: liquids have definite volumes but they take the shape of their _____

CRYSTAL: a type of solid where particles are arranged in repeating patterns

DECREASES: the density of air _____ with the altitude

DEFINITE: gases do not have _____ shapes nor volumes

DENSITIES: helium and air have different _____

DENSITY: $\text{Mass} \div \text{Volume}$

DEW: some cool mornings water vapor condenses and form that

DIVIDED: volume is equal to mass _____ by density

DRAWN: the property of ductility allows a metal to be _____ into fine wire

DUCTILITY: a useful property of metals

EQUAL: $\text{specific volume} = \text{Mass of substance} \div \text{Mass of volume of water}$ _____

EXPAND: most substances do that when heated

EXPANSION: it is a physical property

EXTENSIVE: physical properties that depend on the amount of mass present

FERRUM: it is the Latin name of iron

FLAMMABILITY: a chemical property

FLAMMABLE: these materials can easily catch fire

FLUORINE: this element helps keep healthy teeth

FORCE: when water freezes and expands it can exert a huge

FOUR: between zero and _____ Celsius degrees water experiences an increase in density

FUSION: heat of _____ is the heat needed to change from solid to liquid

FUZZY: looking through translucent materials produce _____ images

GALLIUM: this metal melts in the palm of your hands

GAS: it has more energy than the same substance as a liquid

GASES: they don't have definite volumes but they take the shape of their containers

GASOLINE: its density is 0.7 g/ml

GENERAL: density is a _____ property of matter

GERMANIUM: this metalloid is important in the computer industry

GOLD: its density is 19.3 g/cm³

GRAVITY: weight is the force of _____ on matter

GRAY: metalloids are usually white or _____ in color

HAMMERED: the property of malleability allows a metal to be _____ into thin sheets

HARDNESS: a physical property

HELIUM: its boiling point is -268.9 °C

HETEROGENEOUS: this matter has parts with different properties

HOMOGENEOUS: this matter has the same properties throughout

HONEY: it has a high viscosity

HYDRARGYRUM: it is the Latin name of mercury

HYDROGEN: the most abundant element in the universe

ICE: its density is 0.92 g/cm³

IDENTITY: physical properties can be observed without changing the _____ of the substance

INERTIA: it is a property of matter

INSULATORS: they have high values of resistivity

INTENSIVE: physical properties that don't depend on the amount of mass present

IRON: its melting point is 1,535 °C

KINETIC: adding heat increases that energy of the molecules of a substance

LEAD: a thick sheet of this metal can stop X-rays

LIQUID: the particles in a _____ are close together but are free to move

LIQUIDS: _____ have definite volumes but not definite shapes

LIVING: _____ organisms need oxygen to survive

MAGNETIC: strong _____ fields can eliminate the superconducting properties of a material

MALLEABILITY: a great property of metals

MASS: a general property of matter

MATTER: mass is the amount of _____ in an object

MELTING: the _____ point of nitrogen is -209.9°C

MERCURY: this metal is a liquid at room temperature

METALLOIDS: they have properties of both metals and nonmetals

METALS: they are good conductors of heat and electricity

MILLILITER: the density of water is 1.0 gram per _____

MULTIPLIED: mass = density _____ by volume

NITROGEN: air contains this element

NEVER: the taste test is _____ done in the chemistry lab

NOBLE: these gases have no chemical reactivity

NONMETALS: they are usually poor conductors of electricity and heat

ODOR: it could be a physical or a chemical property of matter

OILS: they have high viscosities

OPAQUE: materials that do not transmit light are called that

OXYGEN: this element is needed for substances to burn

PHYSICAL: these properties can be extensive and intensive

PRESSURE: at ordinary _____ dry ice cannot become liquid

PROPAGATE: light can _____ in those substances that are transparent

PROPERTIES: malleability, ductility, and conductivity, are intensive _____

PROPERTY: density is an example of an intensive _____

PURE: those substances have identical properties throughout

RADIOACTIVE: unstable elements are called that

REFRACTION: this index shows how much a material can bend light

RESISTANCE: inertia is the _____ of an object to changes in its motion

RESISTIVITY: opposite of conductivity

SALT: its boiling point is 1,413 °C

SEMICONDUCTING: silicon and germanium have this property

SHAPE: it is a physical property

SHAPES: a football and a soccer ball have different _____

SILICON: this element is found in most beaches

SILVER: this metal has a density of 10.5 g/cc

SOLID: all metalloids are that

SOLIDS: they have definite shapes and volumes

SPACE: volume is the amount of _____ matter occupies

SPECIFIC: color, odor, shape, texture, and hardness are _____ properties of matter

SUBSTANCES: chemical changes produce new _____

SUGAR: _____ and salt have a different taste

SUPERCONDUCTORS: these materials don't have any electrical resistance

SUPPORTING: oxygen has the chemical property of _____ burning

TASTE: it could be a physical or a chemical property of matter

TENACIOUS: metals are _____ materials

TENACITY: a property of metals in which they resist being stretched

TITANIUM: this transition metal is stronger and lighter than steel

TRANSLUCENT: wax paper and frosted glass are _____ materials

TRANSMIT: translucent materials can _____ light but not too clearly

TRANSPARENT: water, glass, and air are _____

URANIUM: this element is used in nuclear reactors

VAPORIZATION: heat of _____ is the heat needed to change from liquid to gas

VISCOSITY: resistance of a liquid to flow

VOLUME: a general property of matter

WATER: the most important substance on planet Earth

WEIGHT: a general property of matter

WET: cold objects tend to become _____ on the outside

WOOD: a block of _____ is an opaque substance

Chemistry Activity # 3-F ** Topic: Properties of Matter

Name: _____ Date: _____ Period: _____ Score: _____

S Y T
M B R T K I N
N R U B O I M D M O A
N O I I F T L E P L S B O
V J R O L O C I T R A R N R S
C U I T L R U B A O R M O A A
I R S G N A C D A L P E U L D R C
H Y D R O G E N M L A N T R I O T
J X S I A C K H O M O G E N E O U S C
Q I T U V I K E C A I A G E F A T M D
K D A Q I L R X R L D T V G E C A P S
J L I T I P P E F S E Q R E T A W
M V L Y S V A P O R I Z A T I O N
O X Y G E N U K N U V E F V H
N W A R D S S E N D R A H E C
G V Y T I C A N E T L K A
N E G O R T I N S A J
I N E R T I A
B U D

AIR
ARGENTUM
BURN
CARBON
COLOR
CRYSTAL
DRAWN
EXPANSION
FLAMMABILITY
FORCE
GALLIUM
GENERAL

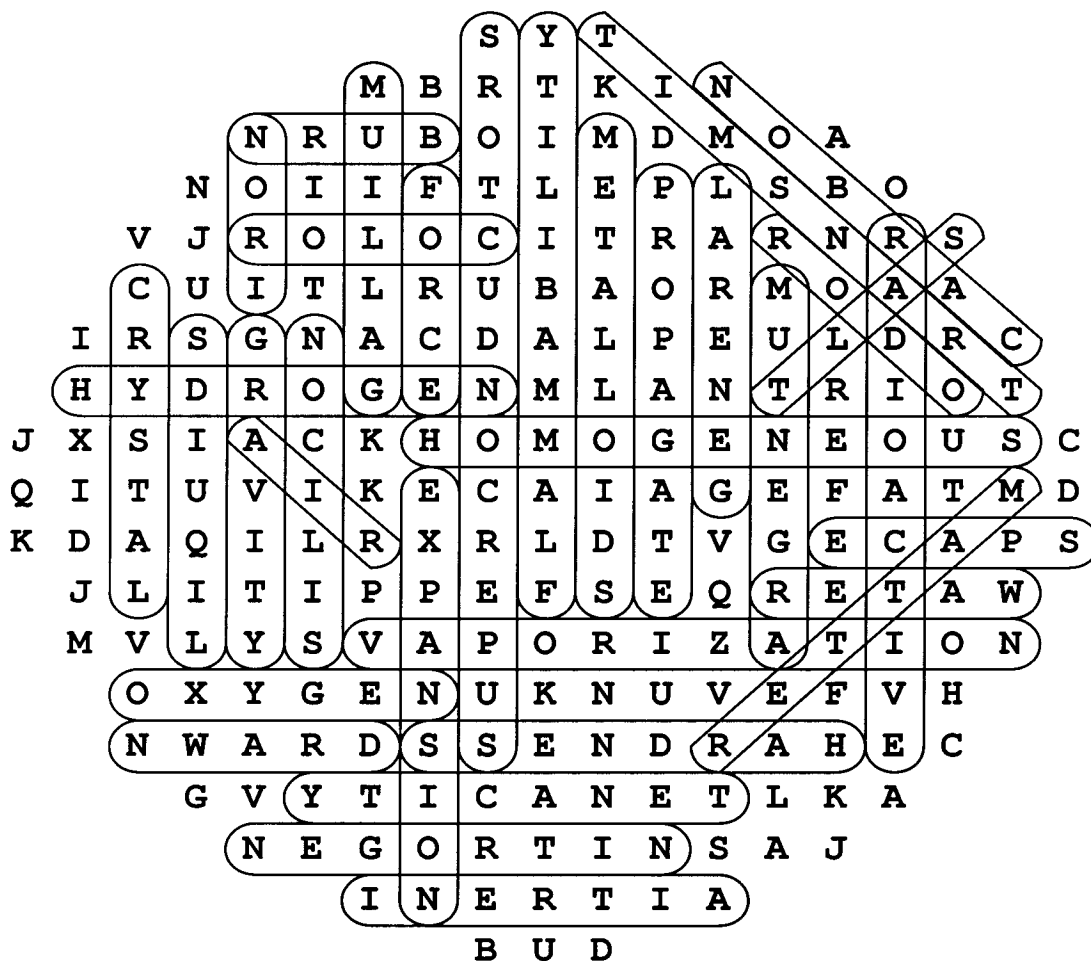
GRAVITY
HARDNESS
HOMOGENEOUS
HYDROGEN
INERTIA
IRON
LIQUIDS
MATTER
METALLOIDS
NITROGEN
ODOR

OXYGEN
PROPAGATE
RADIOACTIVE
SALT
SILICON
SPACE
SUPERCONDUCTORS
TENACITY
TRANSMIT
VAPORIZATION
WATER

INSTRUCTIONS:

1. Find all the shown words in the Word Search Puzzle.
2. Use each word to form a sentence that is relevant to the topic studied. Your sentences must involve useful concepts or facts, and your grade will depend on the quality of the sentences formed.

Solution



AIR
 ARGENTUM
 BURN
 CARBON
 COLOR
 CRYSTAL
 DRAWN
 EXPANSION
 FLAMMABILITY
 FORCE
 GALLIUM
 GENERAL

GRAVITY
 HARDNESS
 HOMOGENEOUS
 HYDROGEN
 INERTIA
 IRON
 LIQUIDS
 MATTER
 METALLOIDS
 NITROGEN
 ODOR
 OXYGEN

PROPAGATE
 RADIOACTIVE
 SALT
 SILICON
 SPACE
 SUPERCONDUCTORS
 TENACITY
 TRANSMIT
 VAPORIZATION
 WATER

Name: _____ Date: _____ Period: _____ Score: _____

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                R M M A G N E T I C
                D M F E Q V G R A Y
                D U C T I L I T Y T
                S S I O S           G I P N B
                L L L N A           U N L E U
                I A E D T           B S A R R
                R O T H U           U L A N V
                J X E D C           L U P I I
                E Z M S T           A M S N S
                S E M I C O N D U C T I N G C P
                Y L R E F R A C T I O N A E O R
                E B E E C S I L V E R U R R S O
                R T A P H Y S I C A L S M T M I P M
                S I M E R S           H A T E U
                P N M L S           B N Y R I
                U E I A B           I N T N M
                G C F L O           U O Y A U
                A I E F N           M I E T R
                L S F D J           S N I U J
                U E I J N           U O T A P
                L S C S V           F H A Q P
    
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ALUMINUM
 AURUM
 BURNING
 CHEMICAL
 CONDUCTORS
 DEFINITE
 DUCTILITY
 EXTENSIVE
 FLAMMABLE
 FUSION
 GASES

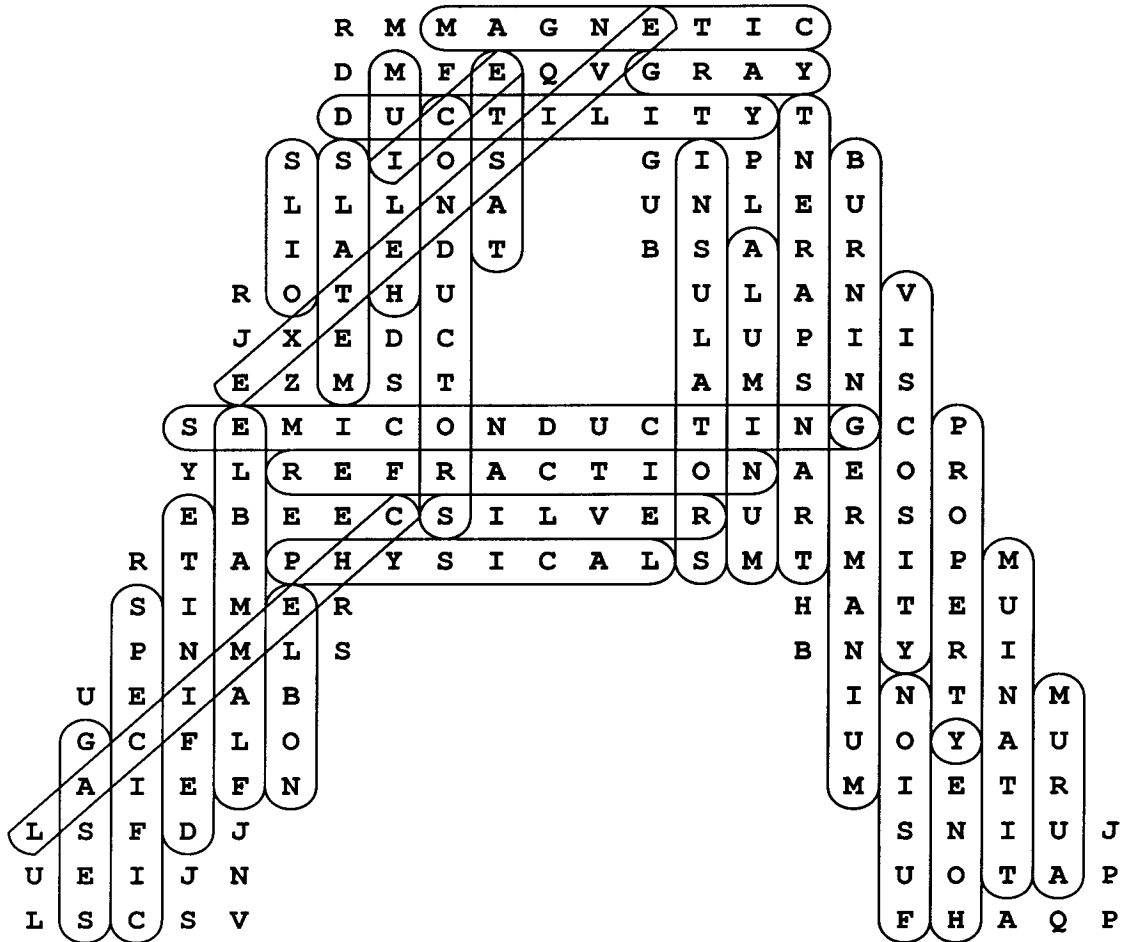
GERMANIUM
 GRAY
 HELIUM
 HONEY
 ICE
 INSULATORS
 MAGNETIC
 METALS
 NOBLE
 OILS

PHYSICAL
 PROPERTY
 REFRACTION
 SEMICONDUCTING
 SILVER
 SPECIFIC
 TASTE
 TITANIUM
 TRANSPARENT
 VISCOSITY

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 AURUM
 BURNING
 CHEMICAL
 CONDUCTORS
 DEFINITE
 DUCTILITY
 EXTENSIVE
 FLAMMABLE
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 GASES

GERMANIUM
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 SEMICONDUCTING
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 SPECIFIC
 TASTE
 TITANIUM
 TRANSPARENT
 VISCOSITY

Name: _____ Date: _____ Period: _____ Score: _____

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          S
        D U H
      K E O R A
    D Y R E E J P
  I N T E N S I V E
M Z A P S M G S N B C H L O R I N E
  W E X N A O T E O I Y B F E R R U M
    L E E H R I C I I D E N T I T Y H E
      S D I E V U L S R E N I A T N O C
        U Y T I L I B A E L L A M K K T
          O E T S N S R E N I R O U L F
            H Y N G L G R M L R A G U S
              U P A A A Y U U L G O L D M
                R E R S T R S I I G E I E
                  A M T O E U S C M U L R
                    N U E L M M E L Q O C
                      I L R I N A R A S U
                        U O U N O N P C R
                          M V P E N O X Y
    
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AMORPHOUS
BOILING
CALCIUM
CHLORINE
CONTAINERS
DENSITY
EXPAND
FERRUM
FLUORINE
GASOLINE
GOLD

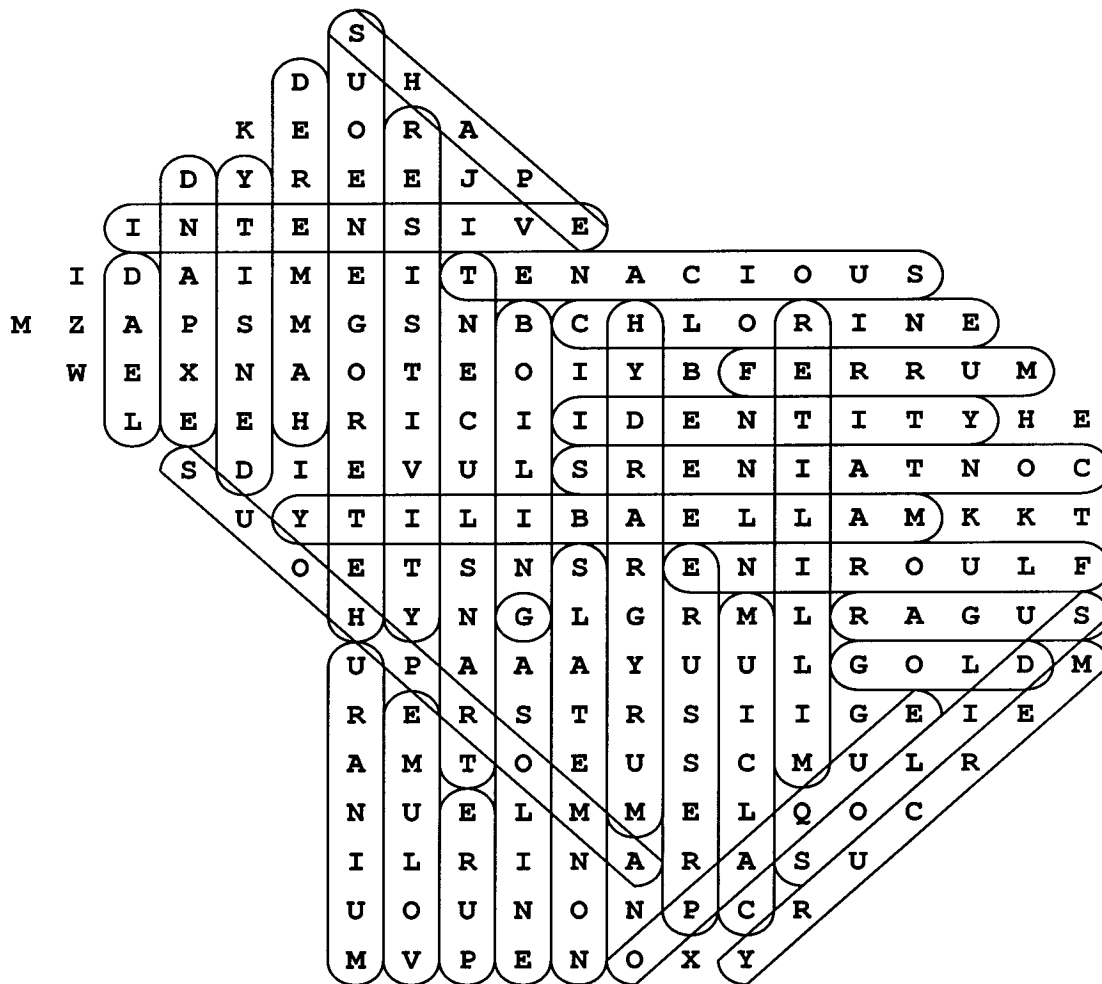
HAMMERED
HETEROGENEOUS
HYDRARGYRUM
IDENTITY
INTENSIVE
LEAD
MALLEABILITY
MERCURY
MILLILITER
NONMETALS
OPAQUE

PRESSURE
PURE
RESISTIVITY
SHAPE
SOLIDS
SUGAR
TENACIOUS
TRANSLUCENT
URANIUM
VOLUME

INSTRUCTIONS:

1. Find all the shown words in the Word Search Puzzle.
2. Use each word to form a sentence that is relevant to the topic studied. Your sentences must involve useful concepts or facts, and your grade will depend on the quality of the sentences formed.

Solution



AMORPHOUS
 BOILING
 CALCIUM
 CHLORINE
 CONTAINERS
 DENSITY
 EXPAND
 FERRUM
 FLUORINE
 GASOLINE
 GOLD

HAMMERED
 HETEROGENEOUS
 HYDRARGYRUM
 IDENTITY
 INTENSIVE
 LEAD
 MALLEABILITY
 MERCURY
 MILLILITER
 NONMETALS
 OPAQUE

PRESSURE
 PURE
 RESISTIVITY
 SHAPE
 SOLIDS
 SUGAR
 TENACIOUS
 TRANSLUCENT
 URANIUM
 VOLUME

Chemistry Activity # 3-I ** Topic: Properties of Matter

Name: _____ Date: _____ Period: _____ Score: _____

To answer each of the following 26 questions, please select the appropriate word from the list at the bottom of the page. On the space provided on the left side of each question, you just need to write the letter of the alphabet located next to the correct word.

1. _____ Solids that lose their shape
2. _____ A type of solid where particles are arranged in repeating patterns
3. _____ They don't have definite volumes but they take the shape of their containers
4. _____ A property of metals by which they resist being stretched
5. _____ This matter has the same properties throughout
6. _____ It is equal to Mass ÷ Volume
7. _____ It could be a physical or a chemical property of matter
8. _____ Physical properties that depends on the amount of mass present
9. _____ They have definite volumes but not definite shapes
10. _____ These properties describe how a substance change into other new substances
11. _____ A chemical property
12. _____ A useful property of metals
13. _____ A physical property
14. _____ Unstable elements are called that
15. _____ They are good conductors of heat and electricity
16. _____ This matter has parts with different properties
17. _____ They have definite shapes and volumes
18. _____ Physical properties that don't depends on the amount of mass present
19. _____ A general property of matter
20. _____ Those substances have identical properties throughout
21. _____ Most substances do that when heated
22. _____ These materials don't have any electrical resistance
23. _____ These materials can easily catch fire
24. _____ Resistance of a liquid to flow
25. _____ These properties can be extensive and intensive
26. _____ Doing that to a substance may change its properties

L I S T O F W O R D S

- | | | |
|------------------|----------------|--------------------|
| A- AMORPHOUS | B- BURNING | C- CHEMICAL |
| D- COLOR | E- CRYSTAL | F- DENSITY |
| G- DUCTILITY | H- EXPAND | I- EXTENSIVE |
| J- FLAMMABILITY | K- FLAMMABLE | L- GASES |
| M- HETEROGENEOUS | N- HOMOGENEOUS | O- INTENSIVE |
| P- LIQUIDS | Q- MASS | R- METALS |
| S- ODOR | T- PHYSICAL | U- PURE |
| V- RADIOACTIVE | W- SOLIDS | X- SUPERCONDUCTORS |
| Y- TENACITY | Z- VISCOSITY | |

Chemistry Activity # 3-I

Topic: Properties of Matter

A N S W E R

K E Y

1 - A	2 - E	3 - L	4 - Y
5 - N	6 - F	7 - S	8 - I
9 - P	10 - C	11 - J	12 - G
13 - D	14 - V	15 - R	16 - M
17 - W	18 - O	19 - Q	20 - U
21 - H	22 - X	23 - K	24 - Z
25 - T	26 - B		

CHAPTER 12 - CHEMICAL REACTIONS

ABSORBED: energy can be _____ in a chemical reaction

ACTIVATION: this energy is needed for reactants to form products

AND: the plus sign in chemical reactions replaces that word

ARROW: the _____ in chemical reaction formulas is read as "yield"

ATOMS: their number never change during a chemical reaction

BALANCED: an equation is that when the number of atoms of each element is the same on both sides

BILLIONS: number of different chemical reactions in nature

BONDING: _____ capacity is the ease with which an atom will form chemical bonds

BROKEN: bonds between atoms experience that during chemical reactions

CALORIE: unit to measure heat

BTU: 1 _____ = 252 calories

JOULES: 1 calorie = 4.186 _____

CALORIMETER: this device can measure the heat released in a reaction

CANDY: heat energy is absorbed when sugar changes into

_____ CAPACITY: the bonding _____ of an atom determines its ability to undergo chemical reactions

CARBONIC: this acid can form water and carbon dioxide

CATALYST: this substance participates in chemical reactions but it is not changed

CATALYSTS: they change the rate of chemical reactions

CHALLENGER: water was formed when it exploded

COEFFICIENT: they are sometimes placed in front of symbols and formulas

COEFFICIENTS: they indicate the number of molecules or atoms involved in a reaction

COLLISION: this theory relates molecular collisions to reaction rates

COLOR: a change in that it is a sign of a chemical reaction

COMPOUND: two or more elements chemically combined

COMPOUNDS: in some chemical reactions, elements combine to form _____

CONCENTRATION: an increase in that of the reactants increases the speed of a reaction

COPPER: this metal is more active than silver
COVALENT: this bonding involves the sharing of electrons
DECOMPOSITION: in this reaction a complex substance breaks down into 2 or more simpler ones
DIAGRAMS: energy _____ can be used to show the energy change in chemical reactions
DIGESTIVE: enzymes accelerate these processes
ELECTROLYSIS: the _____ of water is an endothermic reaction
ELEMENTS: in some chemical reactions, compounds break down to form those
ENDO: this prefix means within
ENDOTHERMIC: reaction in which energy is absorbed
ENERGY: chemical reactions cause changes in the _____ of the substances
ENTROPY: it describes the degree of disorder of a system
ENZYMES: they are biochemical catalysts
EQUAL: the arrow in chemical reaction formulas takes the place of that sign
EXO: this prefix means outside
EXOTHERMIC: reaction in which energy is released
EXPLOSIONS: most single-replacement reactions do not cause that
FIRECRACKER: the explosion of that device results in an exothermic reactions
FIRST: writing correctly the symbols and formulas is that step in balancing chemical reactions
FLASHBULB: in this reaction, magnesium oxide and energy are produced
FORMATION: a lot of energy is released when a compound with a high negative heat of _____ is formed
FORMULAS: these are used to write chemical reactions
FOUR: chemists have identified this number of types of reactions
FOURTH: checking the work by counting the atoms of each element is this step in balancing chemical reactions
GAS: when that forms it is a sign of a chemical reaction
GASOLINE: burning that is an example of a chemical reaction
GIBBS: this free-energy change relates heat content, entropy, and temperature
HEAT: some chemical reactions produce that
HIGHER: higher temperature causes a _____ entropy

HINDERBERG: the explosion that destroyed the _____ was a synthesis reaction

INHIBITORS: in the past these substances were called negative catalysts

IONIC: this bonding involves the gain or loss of electrons

KINETICS: it is the study of chemical reaction rates

LEFT: reactants are located on that side of a chemical equation

LESS: in exothermic reactions the energy of the products is _____ than the energy of the reactants

LIBERATED: heat energy is _____ when gasoline burns

MASS: in chemical reactions always there is conservation of _____

MAXIMUM: the tendency of natural process is toward the _____ entropy

MINIMUM: the tendency of natural process is toward the _____ energy

MOLE: the heat of combustion of a substance is based on one _____ of the reactant

MOLECULES: atoms can form them during chemical reactions

NEGATIVE: the heat of formation is that for exothermic reactions

OIL: the burning of that is an exothermic reaction

ONE: number of atoms of sulfur in one molecule of sulfuric acid

PAINTS: these colorful chemical compounds are produced by double-replacement reactions

PANCAKES: the cooking of that is an endothermic reaction

PLUS: this math symbol is used to write a chemical reaction

POSITIVE: the heat of formation is that for endothermic reactions

PRECIPITATE: when that forms it is a sign of a chemical reaction

PRODUCT: a substance produced by a chemical reaction is called that

PROPERTIES: chemical reactions cause changes in the _____ of the substances

REACTANT: name of the substance that enter into a chemical reaction

REACTANTS: the energy released in exothermic reactions was originally stored in them

REACTION: heat of _____ is the amount of heat released or absorbed during a chemical reaction

REARRANGEMENTS: chemical reactions involve the _____ of atoms

RELEASED: energy can be _____ in a chemical reaction

REPLACEMENT: in a double-_____ reaction different atoms in 2 different compounds replace each other

RIGHT: products are shown on that side of a chemical equation

RULES: there are four _____ to balance chemical equations

RUSTING: it is a chemical reaction

SALT: the decomposition of that kitchen substance is an endothermic reaction

SAWDUST: wood burns faster in that form than as logs

SECOND: counting the number of atoms of each element on each side of the arrow is this step in balancing chemical reactions

SEVEN: number of atoms in one molecule of sulfuric acid

SINGLE: in a _____-replacement reaction an uncombined element replaces an element of a compound

SPONTANEOUS: the Gibbs free-energy change is negative for these chemical reactions

SUGAR: cooking that is an example of a chemical reaction

SURFACE: _____ area also affects the speed of chemical reactions

SYMBOLS: these are used to write chemical reactions

SYNTHESIS: in this reaction two or more simple substances form a new more complex one

TEMPERATURE: an increase in _____ causes reactions to occur faster

THERMIC: this root means heat

THERMOCHEMICALS: these equations give information about the heat of reaction

THIRD: adding coefficients to balance atoms is this step in balancing chemical reactions

UNIVERSE: its entropy never goes down

VALENCE: these electrons are located in the outermost energy level of an atom

VERTICAL: the _____ axis of energy diagrams represents the energy

WATER: hydrogen and oxygen combine explosively to form that substance

WORK: Gibbs free-energy is the energy available to do useful _____

YIELD: this word means produce or generate

ZERO: by definition, each element in its standard state has this heat content

Name: _____ Date: _____ Period: _____ Score: _____

```

                U N Y
            S A W D U S T
        R U S T I N G J X F C
    H E C A F R U S P P I X D
S L A C I M E H C O M R E H T
C S R R T C A L O R I E N J S
    C I M R E H T O X E E C C C N R M
A T A A A P Y W H J N A R O O O B
J N E R N C R P T N O I T A V I T C A
I D N G G T O O S E U L A C A S I L B
Z Y I A E A D R E Q L O L K L I B Q S
    H K I M N U T L U E S Y E E L I F
    J E D E T C N U A S A S R N L H E
        B A N S T E C L E G T K T O N
            X P T E M P E R A T U R E C I
                U S I S Y L O R T C E L E
                    C O M P O U N D B Q B
                        X W M R U S O
                            E V B
    
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ACTIVATION
 CALORIE
 CANDY
 CATALYST
 COLLISION
 COMPOUND
 COVALENT
 DIAGRAMS
 ELECTROLYSIS
 ENDOTHERMIC

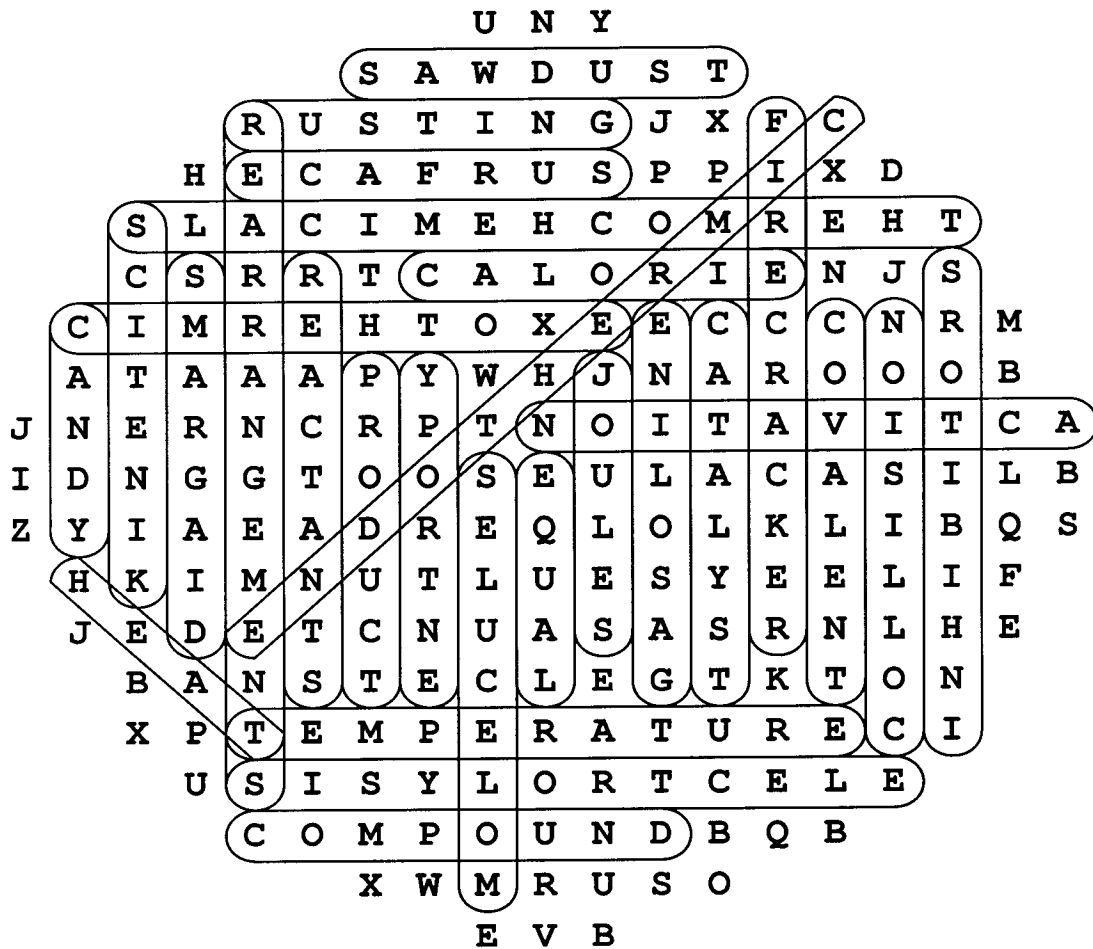
ENTROPY
 EQUAL
 EXOTHERMIC
 FIRECRACKER
 GASOLINE
 HEAT
 INHIBITORS
 JOULES
 KINETICS

MOLECULES
 PRODUCT
 REACTANTS
 REARRANGEMENTS
 RUSTING
 SAWDUST
 SURFACE
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 THERMOCHEMICALS

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ENTROPY
 EQUAL
 EXOTHERMIC
 FIRECRACKER
 GASOLINE
 HEAT
 INHIBITORS
 JOULES
 KINETICS
 MOLECULES

PRODUCT
 REACTANTS
 REARRANGEMENTS
 RUSTING
 SAWDUST
 SURFACE
 TEMPERATURE
 THERMOCHEMICALS

Name: _____ Date: _____ Period: _____ Score: _____

S O S N C O M
 I D S P O I Y S Q
 Z B E W O I M C F K B
 C O N C E N T R A T I O N
 D F Z F O Y T C E L L H N E Q
 Y L Y Z I M P A A H O A B D P C A
 T S M L J B P Q N E T R S E I G O S R
 M E G P P R O P E R T I E S N R L B E
 S E X P L O S I O N S M P Q G E O B S
 S E S R E V I N U D O E B I M B R I V
 C A P A C I T Y S L N T N R C R S G M
 D I G E S T I V E Q U E C B F E X K Y
 I X M Y N N O T C J E R F V H D R F F
 G H R E G N E L L A H C T R N E P
 L J Y Z I C M S I M N O Y I S
 S K X C J Y B I Y S N Q H
 K R E L E A S E D Z R
 N W W M W V P F Q
 E U T G P E E

BONDING
 BTU
 CALORIMETER
 CAPACITY
 CHALLENGER
 COLOR
 CONCENTRATION
 DECOMPOSITION
 DIGESTIVE

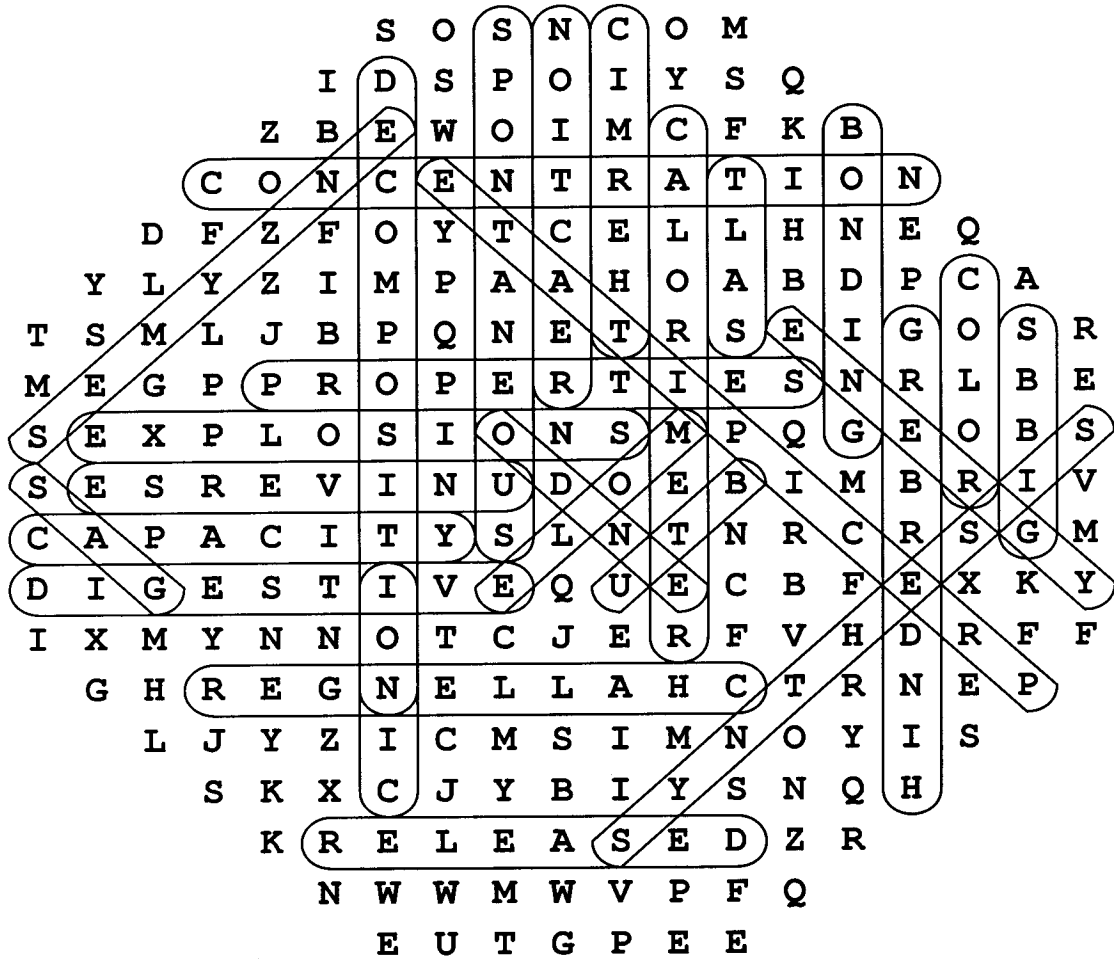
ENDO
 ENERGY
 ENZYMES
 EXPLOSIONS
 GAS
 GIBBS
 HINDERBERG
 IONIC
 MOLE

PRECIPITATE
 PROPERTIES
 REACTION
 RELEASED
 SALT
 SPONTANEOUS
 SYNTHESIS
 THERMIC
 UNIVERSE

INSTRUCTIONS:

1. Find all the shown words in the Word Search Puzzle.
2. Use each word to form a sentence that is relevant to the topic studied. Your sentences must involve useful concepts or facts, and your grade will depend on the quality of the sentences formed.

Solution



BONDING
 BTU
 CALORIMETER
 CAPACITY
 CHALLENGER
 COLOR
 CONCENTRATION
 DECOMPOSITION
 DIGESTIVE

ENDO
 ENERGY
 ENZYMES
 EXPLOSIONS
 GAS
 GIBBS
 HINDERBERG
 IONIC
 MOLE

PRECIPITATE
 PROPERTIES
 REACTION
 RELEASED
 SALT
 SPONTANEOUS
 SYNTHESIS
 THERMIC
 UNIVERSE

Chemistry Activity # 12-H ** Topic: Chemical Reactions

Name: _____ Date: _____ Period: _____ Score: _____

To answer each of the following 26 questions, please select the appropriate word from the list at the bottom of the page. On the space provided on the left side of each question, you just need to write the letter of the alphabet located next to the correct word.

1. _____ Reaction in which energy is released
2. _____ Burning that is an example of a chemical reaction
3. _____ They are biochemical catalysts
4. _____ In some chemical reactions, compounds break down to form them
5. _____ Cooking that is an example of a chemical reaction
6. _____ Water was formed when it exploded
7. _____ It is the study of chemical reaction rates
8. _____ An equation is that when the number of atoms of each element is the same on both sides
9. _____ Adding coefficients to balance atoms is this step in balancing chemical reactions
10. _____ Writing correctly the symbols and formulas is that step in balancing chemical reactions
11. _____ This device can measure the heat released in a reaction
12. _____ In chemical reactions always there is conservation of that
13. _____ Checking the work by counting the atoms of each element is this step in balancing chemical reactions
14. _____ This theory relates molecular collisions to reaction rates
15. _____ This energy is needed for reactants to form products
16. _____ Name of the substance that enter into a chemical reaction
17. _____ Some chemical reactions produce that
18. _____ In some chemical reactions, elements combine to form them
19. _____ The cooking of that is an endothermic reaction
20. _____ In this reaction a complex substance breaks down into 2 or more simpler ones
21. _____ Hydrogen and oxygen combine explosively to form that substance
22. _____ It is a chemical reaction
23. _____ When that forms it is a sign of a chemical reaction
24. _____ Counting the number of atoms of each element on each side of the arrow is this step in balancing chemical reactions
25. _____ The heat of formation is that for exothermic reactions
26. _____ An increase in that causes reactions to occur faster

L I S T O F W O R D S

- | | | |
|------------------|--------------|----------------|
| A- ACTIVATION | B- BALANCED | C- CALORIMETER |
| D- CHALLENGER | E- COLLISION | F- COMPOUNDS |
| G- DECOMPOSITION | H- ELEMENTS | I- ENZYMES |
| J- EXOTHERMIC | K- FIRST | L- FOURTH |
| M- GASOLINE | N- HEAT | O- KINETICS |
| P- MASS | Q- NEGATIVE | R- PANCAKES |
| S- PRECIPITATE | T- REACTANT | U- RUSTING |
| V- SECOND | W- SUGAR | X- TEMPERATURE |
| Y- THIRD | Z- WATER | |

Chemistry Activity # 12-H

Topic: Chemical Reactions

A N S W E R

K E Y

1 - J	2 - M	3 - I	4 - H
5 - W	6 - D	7 - O	8 - B
9 - Y	10 - K	11 - C	12 - P
13 - L	14 - E	15 - A	16 - T
17 - N	18 - F	19 - R	20 - G
21 - Z	22 - U	23 - S	24 - V
25 - Q	26 - X		

Chemistry Activity # 12-I *** Topic: Chemical Reactions

Name: _____ Date: _____ Period: _____ Score: _____

To answer each of the following 26 questions, please select the appropriate word from the list at the bottom of the page. On the space provided on the left side of each question, you just need to write the letter of the alphabet located next to the correct word.

1. _____ Reactants are located on that side of a chemical equation
2. _____ A substance produced by a chemical reaction is called that
3. _____ By definition, each element in its standard state has this heat content
4. _____ This free-energy change relates heat content, entropy, and temperature
5. _____ They change the rate of chemical reactions
6. _____ The explosion of that is an exothermic reactions
7. _____ Wood burns faster in that form than as logs
8. _____ Enzymes accelerate these processes
9. _____ They indicate the number of molecules or atoms involved in a reaction
10. _____ These colorful chemical compounds are produced by double-replacement reactions
11. _____ Its entropy never goes down
12. _____ The arrow in chemical reaction formulas takes the place of that sign
13. _____ The Gibbs free-energy change is negative for these chemical reactions
14. _____ The heat of formation is that for endothermic reactions
15. _____ Chemists have identified this number of types of reactions
16. _____ In this reaction two or more simple substances form a new more complex one
17. _____ Reaction in which energy is absorbed
18. _____ In the past these substances were called negative catalysts
19. _____ When that forms it is a sign of a chemical reaction
20. _____ These equations give information about the heat of reaction
21. _____ Bonds between atoms experience that during chemical reactions
22. _____ An increase in that of the reactants increases the speed of a reaction
23. _____ A change in that it is a sign of a chemical reaction
24. _____ Their number never change during a chemical reaction
25. _____ Atoms can form them during chemical reactions
26. _____ Products are written on that side of a chemical equation

L I S T O F W O R D S

- | | | |
|-----------------|----------------|--------------------|
| A- ATOMS | B- BREAK | C- CATALYSTS |
| D- COEFFICIENTS | E- COLOR | F- CONCENTRATION |
| G- DIGESTIVE | H- ENDOTHERMIC | I- EQUAL |
| J- FIRECRACKER | K- FOUR | L- GAS |
| M- GIBBS | N- INHIBITORS | O- LEFT |
| P- MOLECULES | Q- PAINTS | R- POSITIVE |
| S- PRODUCT | T- RIGHT | U- SAWDUST |
| V- SPONTANEOUS | W- SYNTHESIS | X- THERMOCHEMICALS |
| Y- UNIVERSE | Z- ZERO | |

Chemistry Activity # 12-I

Topic: Chemical Reactions

A N S W E R

K E Y

1 - O	2 - S	3 - Z	4 - M
5 - C	6 - J	7 - U	8 - G
9 - D	10 - Q	11 - Y	12 - I
13 - V	14 - R	15 - K	16 - W
17 - H	18 - N	19 - L	20 - X
21 - B	22 - F	23 - E	24 - A
25 - P	26 - T		