



Snow packet.

Science

Element Word Search

Directions: Hidden in the puzzle below are the names of 40 common elements. The names may be spelled vertically, horizontally, backwards or diagonally. Some letters may be used in more than one name.

ALUMINUM
ANTIMONY
ARGON
BERYLLIUM
BORON
CALCIUM
CARBON
CHLORINE
COPPER
FLUORINE

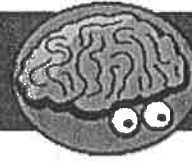
GOLD
HELIUM
HYDROGEN
IODINE
IRON
KRYPTON
LEAD
LITHIUM
MERCURY
NEON

NICKEL
NITROGEN
OXYGEN
PALLADIUM
PHOSPHORUS
PLATINUM
PLUTONIUM
POTASSIUM
RADIUM
RADON

SILICON
SILVER
SODIUM
SULFUR
TIN
TITANIUM
TUNGSTEN
URANIUM
ZINC
ZIRCONIUM

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

The Changing Planet

BrainBuilder
LA #3548

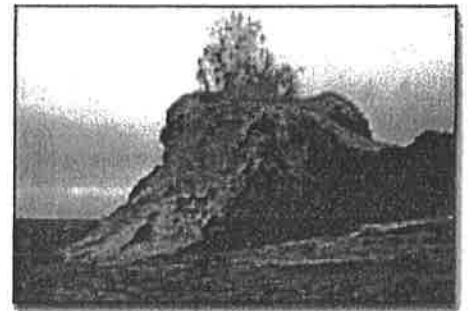
Gathering










Earth today looks very different from the time the dinosaurs roamed it. Earth has gone through many changes since it first formed. It is changing even today. Take a closer look at some of the forces that have changed and continue to change our home, Earth.



Directions: Place the correct letter in the blank before the sentence.
E = Earthquake, G = Glaciers, V = Volcanoes

- _____ These can be active, dormant, or extinct.
- _____ These can carve out large bowls on the sides of mountains.
They can even carve out entire valleys.
- _____ These occur when forces in Earth cause sections of land to suddenly slide past or into each other.
- _____ Lava from these makes islands, like Hawaii, bigger every year.
- _____ The Ice Ages were prehistoric times in which these covered large areas of the world.
- _____ When these occur under the ocean, they can create islands.
- _____ People who live in areas where these occur must take special precautions when furnishing and decorating their homes.
- _____ Ice and snow that does not melt on mountains builds up to make these.
- _____ If you live along the San Andreas Fault in California, you are likely to have experienced these.
- _____ Sometimes the force of these is great enough to blast them apart.



 BIOMASS renewable Heating, electricity, transportation	4.1%	 PETROLEUM nonrenewable Transportation, manufacturing	37.3%
 HYDROPOWER renewable Electricity	2.8%	 NATURAL GAS nonrenewable Heating, manufacturing, electricity	24.7%
 GEO THERMAL renewable Heating, electricity	0.4%	 COAL nonrenewable Electricity, manufacturing	20.9%
 WIND renewable Electricity	0.7%	 URANIUM nonrenewable Electricity	8.8%
 SOLAR & OTHER renewable Light, heating, electricity	0.1%		

Energy Worksheet

Name: _____ Per: _____

http://www.cleant.org/images/clean/literacy/us_energy_consumption_source.jpg images/clean/literacy/us_energy_consumption_source.

1. Based on your current understanding of energy, what are some things in your house that use energy?

2. Compare the terms: renewable resource and nonrenewable resource.

Initial Thoughts:

1. Can energy be lost or created? Explain what happens to energy. _____

2. What do you think the advantage of a hybrid car is over a regular car? _____

Analysis Questions:

1. What does the term electrical generation mean? _____

2. Briefly describe each of the following energy sources:

a. Fossil Fuels:

b. Nuclear Energy:

c. Biomass Energy:

d. Geothermal Energy:

e. Hydroelectric Energy:

f. Solar Energy:

g. Tidal Harness:

h. Wind Energy:

3. Which energy sources are:

a. Renewable?

b. Nonrenewable?

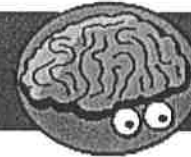
4. Which type of electrical energy generation do you feel has:

a. The most important advantage?

b. The greatest disadvantage?

5. A sunny and windy city near a mountain river currently uses 40% coal, 30 % natural gas, 25 % hydroelectric, and 5 % other renewable methods for generating electricity. The community needs more electricity, and you have been hired to recommend the types of electrical generation to install. Which energy facilities should this city build for the future? Be sure to weigh the advantages and disadvantages of each energy type that you recommend.

Atoms


 BrainBuilder
LA #5661


Gathering

You have previously learned about atoms. Now it is time to learn how electrons, protons, and neutrons make up the structure of the atom. Take another look, a very close look.

Directions: Circle the word that correctly completes the sentence.

1. Electrons do not all orbit at the same level around the nucleus of an atom. They orbit in layers called _____.

circles
ellipses
shells
patterns

2. In the first level, closest to the nucleus, there can be only _____ electrons.

2
4
6
8

3. In the second level, there can be up to _____ electrons.

2
4
6
8

4. Other levels can hold more than eight electrons, but the outermost shell can hold only _____ electrons.

4
6
8
10

5. A _____ has the same number of protons and electrons.

free neutron
balanced atom
unstable atom
balanced molecule

6. Electrons are all negatively charged. Two negative charges will _____, or push away from each other.

revolt
attract
resound
repel

7. It is hard to draw an atom because they are _____. That means they have height, width, and depth.

three-dimensional
two-dimensional
four-dimensional
one-dimensional
