

Name: _____

Period: _____

Biomass, Hydrogen, and Geothermal Energy

Directions: Read the packet on all 3 different energies and answer the following questions.

Biomass

- 1.) Biomass is any organic matter (anything that was once _____).
- 2.) What are 4 examples of biomass.
- 3.) True or False: People have used biomass longer than any other energy source.
- 4.) Biomass gets its energy from the _____.
- 5.) What is the process where plants absorb sunlight?
- 6.) Biomass is a _____ energy source because we can grow more in a short period of time.
- 7.) What are the four ways to release energy stored in biomass?
- 8.) Garbage can be burned to generate _____ and _____.
- 9.) As the plants and animals decay, they produce a colorless, odorless gas called _____.
- 10.) We can yeast to biomass to produce an alcohol called _____.
- 11.) Conversion means changing a _____ into something else.
- 12.) Biomass can _____ the air when it is burned.

Hydrogen

- 13.) Hydrogen is the simplest _____ known to man.
- 14.) What is made primarily of hydrogen?

- 15.) Inside the sun, hydrogen atoms combine to form helium. This process is called _____.
- 16.) It gives off radiant energy. This radiant energy sustains _____ on earth.
- 17.) This renewable resource can't be used all the time. Why?
- 18.) Hydrogen is an energy carrier for the _____.
- 19.) We make hydrogen by separating it from what 3 things?
- 20.) _____ is the primary user of hydrogen as an energy carrier.
- 21.) Before hydrogen becomes a significant fuel, we will need systems to _____ hydrogen, _____ it, and _____ it.
- 22.) It is the goal of the U.S. Department of Energy for hydrogen to produce _____ percent of our energy by the year 2030.

Geothermal

- 23.) Geothermal energy is _____ from within the _____.
- 24.) Look at the diagram of the layers of the earth and list them along with what that layer is made of.
- 25.) Geothermal energy was used by ancient people for _____ and _____.
- 26.) The first successful American geothermal plant began operating in what year?
- 27.) Most of the geothermal activity in the world occurs in what area?
- 28.) Geothermal wells are _____ to _____ miles deep.
- 29.) Geothermal energy does _____ damage to the environment.
- 30.) Where have geothermal power plants been built?

