

Name _____

Date _____

Period _____

Greatest Inventions with Bill Nye **ENERGY**

1. What modern invention allows us to drill for oil in the deep ocean? _____
 - What's the name of the largest one? _____
2. In the U.S., coal produces more than _____ of our electrical power, and accounts for over _____ of our energy consumption.
3. The _____ is used to power cars, planes, ships, trains, and factories.
 - The _____-stroke engine was invented by Nicholas Auto in 1876.
 - The _____-stroke engine was later invented, but is inefficient and dangerous to the environment.
4. How is the diesel engine different from the 4-stroke engine? _____
5. The first hydroelectric dam was built in _____
6. The largest hydroelectric dam is being constructed is called the _____ in China. Once it's in use, it will generate _____ times the electricity generated by Hoover Dam.
7. Nuclear power is generated by _____ atoms, called nuclear fission.
8. The _____ is a product of "unrestrained nuclear fission".
9. In early nuclear power plants, _____ ton of uranium produced as much energy as _____ tons of coal or barrels of oil.
10. The problem with nuclear energy is that splitting atoms creates hazardous radioactive particles that may cause _____.

- An estimated _____ people were killed as a result of the accident at the Chernobyl nuclear plant in the Ukraine.
 - _____ people died instantly.
 - More than _____ people may die as a result of the cancer caused by Chernobyl's radiation.
11. Worldwide, more than 400 nuclear power accounts for about _____% of the world's electricity production.
12. How does solar power benefit people who live in remote places, such as the village in Brazil?
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13. As of now, only _____% of solar power is being harnessed and converted into electricity.
- In the Northern Hemisphere, the _____ side of houses receives direct sunlight
 - In the Southern Hemisphere, the _____ side of houses receives direct sunlight
14. Windmills have a fan diameter of over _____ meters, which is as long as a _____.
15. The best places to build wind turbines are where there's a lot of wind, such as plains and
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- A cluster of wind turbines is called a _____.
 - In crowded cities, small wind turbines can be put on top of _____ and can generate enough energy to power an entire _____.
16. **Thought question:** Where else could we put wind turbines, so they would receive lots of wind but not be in our way? _____
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17. **Thought question:** What are some drawbacks to using wind power? (i.e. how could it be harmful to the environment?) _____
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18. Fuel cells made from the element _____ can power internal combustion engines. The “waste” product of hydrogen energy is pure _____.