

Bill Nye Energy Video Worksheet

<https://www.youtube.com/watch?v=8qmSzMwTkpk>

1. When we do something we are using _____.
2. Energy can be _____ from one form to another.
3. When energy is stored we call it _____ energy.
4. When energy is moving we call it _____ energy.
5. Lifting the tank of water gave it _____ energy.
6. This energy was converted into _____ energy as the water flowed down the tube.
7. Water was then used to power the generator changing kinetic energy into _____ energy.
8. The baking soda plus vinegar caused a _____ reaction.
9. The energy from the reaction was converted into _____ energy that caused the cork to pop off the bottle.
10. In the bowling ball demonstration, we pull the bowling ball back and give it _____ energy.
11. When we release the bowling ball we give it _____ energy.

12. Complete the table.

Three things that can generate electrical energy are...	Three other forms that electrical energy can be turned into are...
1.	1.
2.	2.
3.	3.

13. What is the form of energy that batteries store energy as? _____
14. A laser converts _____ energy into _____ energy by making _____ molecules vibrate.
15. The energy we get from foods began as _____ energy from the sun.
16. Whenever energy is converted from one form to another a little bit of it ends up as _____.
17. Why can't kinetic energy ever be greater than potential energy? _____

Name _____ Date _____ Period _____

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18. Why do you get warm when you exercise? _____

QUESTIONS FOR AFTER THE VIDEO:

19. Why didn't the bowling ball pendulum hit Bill Nye in the face?

20. With the information you learned from the video in mind, how do WE get OUR energy (there's more than ONE way)? Explain how that energy converts itself from POTENTIAL to KINETIC energy.

Classify the following as a type of potential (P) energy or kinetic (K) energy (use the letters K or P)

- | | |
|--|---|
| 21. A bicyclist pedaling up a hill _____ | 26. A quarterback right BEFORE he throws the ball _____ |
| 22. A volleyball player spiking a ball _____ | 27. A baseball thrown to second base _____ |
| 23. The chemical bonds in sugar _____ | 28. The wind blowing a plastic bag _____ |
| 24. Runners "on their marks" at the start line of a race _____ | 29. Sitting in the top of a tree _____ |
| 25. A bowling ball rolling down the alley _____ | 30. A bowling ball sitting on the rack _____ |

Below name or draw with labels YOUR OWN example to POTENTIAL AND KINETIC ENERGY.

31. Example of POTENTIAL ENERGY: _____

32. Example of KINETIC ENERGY: _____
