

**Bill Nye Energy Questions**

Name Smarty Pants Homebase Mr. Toze Date Tues Jan 18<sup>th</sup> 2011

What are the different forms of energy described in the video?

heat, sound, light, electricity, kinetic, potential, mechanical (moving), nuclear, wind, chemical

What would the world be like without energy? no electricity, no clouds moving, no wind, no movement, all life would go out. Cold, dark, dead world

What are some ways that energy is stored in this video? Winding up a rubber band (in a toy airplane or a bungee cord), lifting water, baking soda and vinegar (chemical energy), fuel, wood,

When vinegar is added to baking soda, what is the evidence that energy is produced? The cork pops off the bottle because the chemical energy changes to moving (kinetic) energy

What types of energy are involved in this "experiment"? chemical, moving, kinetic, potential

What is energy? (The ability to do work); Energy is what makes things work.

What does energy do? Energy makes things move, go, fall, change, makes a different form of energy

Why didn't the bowling ball hit Bill Nye's face? Because the energy of movement cannot be greater than the potential energy. The bowling ball will only have as much energy as it is given and so it doesn't go further than where it was released from.

What types of energy are involved in the bowling ball part of the video? Potential (stored) and kinetic (moving energy)

Name the different ways that electrical energy is made? Burning coal (fossil fuels), falling water (hydroelectric power), separating atoms (nuclear energy), windmills turning (wind energy), the sun on a solar panel (solar energy)

How does hydroelectric (dams) energy work? Water falling from a dam turns turbines which in turn make a generator work to produce electricity