Name: ______________________

The Frontiers of Chemistry: Video Questions

Instructions
While watching the video, answer the following questions:

1. What is one of the biggest questions that faces scientists today?

2. How much power do experts predict will be needed by the year 2040?

3. What is the most challenging aspect of renewable energy sources right now?

4. Dye molecules are good at absorbing light due to arrangements of carbon atoms that alternate single and double bonds in their molecules. What is this arrangement called?

5. True or False? Dye sensitized solar cells can be a cheaper alternative to fossil fuels.

6. The most common 3D printers use thermoplastics. What type of energy do these printers need to operate?

7. Describe a polymer:

8. How are the new 3D printers different than the original printers?

9. When hydrogen peroxide decomposes, what products are formed?

10. A Nobel Prize was awarded for work related to which type of micro-machine in 2016?

11. Molecules with specific shapes can help drugs effectively target cancerous tumors in the body. What are these kinds of molecules called?