**Piezoelectric Quiz Answer Key**

1. **Provide a brief explanation of the piezoelectric effect and the converse piezoelectric effect.**

**The piezoelectric effect converts mechanical energy into electrical energy.**

**The converse piezoelectric effect converts electrical energy into mechanical energy.**

1. **Make a drawing to illustrate what causes the piezoelectric effect at the atomic level.
(Hint: Think about the placement of charges in the atoms of the material.)**
2. **List three possible (conceptual or real) applications of piezoelectric materials.**

***Example answers*: Sensors, actuators, speakers, artificial muscles, energy harvesting (piezoelectric sidewalks, clothes, roads, cars, etc.), light-up shoes, and many other possible applications.**

***Bonus Question*: Explain your own, unique idea(s) for using piezoelectric materials.**

**Answers will vary.**