Types of Energy

|  |  |
| --- | --- |
| What is ENERGY? | |
| **There are two main branches of energy:** | |
| Kinetic Energy (KE):  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  The energy is contained in the movement of the object or movement inside of the object  Example: | Potential Energy (PE):  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Energy that can be kept for use at a later time.  Example: |

The Ten Types of Energy

|  |  |  |  |
| --- | --- | --- | --- |
| **Type** | **Definition** | **Examples or Sources** | **PE or KE** |
| Mechanical |  |  |  |
| Chemical |  |  |  |
| Gravitational |  |  |  |
| Light |  |  |  |
| Electrical |  |  |  |
| Nuclear |  |  |  |
| Magnetic |  |  |  |
| Elastic |  |  |  |
| Thermal |  |  |  |
| Sound |  |  |  |

Energy Transformations

An **energy transformation** is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from one type of energy to another type. Energy is constantly changing form from one type into another. This is happening all around us throughout the Universe!

**Example of Changes**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Description** | **Energy In** | **Energy Out** |
| http://c.shld.net/rpx/i/s/i/spin/-122/prod_1485509212?hei=245&wid=245&op_sharpen=1&qlt=85 | Toaster |  |  |
| Image result for acoustic guitar | Guitar String being plucked |  |  |
| Image result for toboggan | Toboggan going downhill |  |  |
| Image result for smart phone | Smartphone/Tablet |  |  |

**Energy Transformations Practice: You Try!**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Description** | **Energy In** | **Energy Out** |
| 1 |  | Gas Powered Grill |  |  |
| 2 |  | Microphone |  |  |
| 3 |  | Sail Boat |  |  |
| 4 |  | Solar Panel Powered Communications Satellite |  |  |

**☺ Think up your own example and discuss with a classmate!**