Chapter 4 Earth Science: Natural Resources

Lesson 2: Renewable Energy Resources

Essential Questions:

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| 1. What are the main sources of renewable energy? | The main sources of renewable energy are; solar energy, wind energy, hydroelectric energy, tidal power, geothermal energy, and biomass energy. |
| 2. What are the advantages and disadvantages of using renewable energy resources? | The advantage to using renewable resources is that they are renewable! They will be available for millions of years. They produce less pollution than fossil fuels.  They depend on the location (geothermal, tidal), solar/wind (cloudy day), water or biomass production. |
| 3. What can individuals do to encourage the use of renewable energy resources? | Discuss ways to use renewable energy At home. Participate in a renewable energy fair at school. Purchase and reuse grocery bags. Reuse-reduce-recycle. |
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| Solar energy | Energy from the sun.  Active and passive solar energy are used in different areas. (Solar Farms) |
| Wind energy | Energy from the wind, which is driven by the sun and the oceans. (Wind Farms) |
| Water energy | Water flowing over dams, or in tidal zones can transfer energy. (Hydroelectric power). |
| Hydroelectric power | Electricity that is produced by flowing water. |
| Tidal power | Coastal areas that have a great difference between high and low tides can be a source of tidal power. Water flows across turbines as the tide comes in. Both actions spin the turbines that generate electricity. |
| Geothermal energy | Thermal energy that comes from Earth’s interior. It can be used to heat homes, generate electricity and generate electricity in power plants. |
| Biomass energy | Energy produced by burning organic matter, such as wood, food scraps, and alcohol. |