OBJECTIVE 2: Examine the conservation and transformation of energy within systems.

**Link 1:**
<https://www.texasgateway.org/resource/energy-transformation>

**Types of Energy**

Click on the icons to briefly review the different types of energy.

**Energy Transformations**

1. Describe the energy transformations when a flashlight is turned on.
2. Complete the Energy Transformations Practice. Insert screenshot of completed task or show your teacher so they can sign off on it.

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**Link 2: Energy Forms and Changes PhET** <https://phet.colorado.edu/sims/html/energy-forms-and-changes/latest/energy-forms-and-changes_en.html>

Click on the Systems tab. Use the PhET to explore different energy transformations. Then, identify the transformations taking place in the following images.

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| --- | --- | --- |
|  | Image | Energy transformation explanation |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

5. Describe the difference between the 2 lightbulbs in terms of energy production.

**Link 3: EduMedia - E3.1 Energy Transformations**
<https://www.edumedia-sciences.com/en/curriculum/2133-e31-describe-and-compare-various-types-of-energy-and-energy-transformations-eg-transformations-related-to-kinetic-sound-electric-chemical-potential-mechanical-nuclear-and-thermal-energy>

Click on the following boxes and explain the energy transformations.:

1. Solar Energy:
2. Power Plant:
3. Hydroelectric Plant:

**Link 4: Lincoln’s Energy Resources**

<https://www.les.com/company/generation-resources>

Where does the energy that WE use in Lincoln come from? Investigate on LES’s website and briefly summarize below.

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**Reflection Questions:**

1. Outline the energy transformations that occur within your cell phone every day. Be specific!
2. Outline the energy transformations that occur within your chromebook every day. Be specific!

1. Come up with your own example of an energy transformation. Explain.

What happens if the sequence isn't completed?

**Link 5: CK 12 10 point Check for Understanding**

<https://www.ck12.org/assessment/ui/?test/view/practice/physics/energy-conversion-Practice&ep=https://www.ck12.org/physics/energy-conversion/?referrer=concept_details>

Click the link and take the 10 question quiz. Insert screenshot of completed task or show your teacher so they can sign off on it.

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