Notes: Review – Energy Types

From Atmosphere:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

From Lithosphere:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

From Hydrosphere:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
| **Renewable Resources** | **Non-Renewable Resources** |
| **Geothermal Energy** → Derived from lithosphere | **Fossil Fuels** → Derived from lithosphere |
| **Hydroelectric Energy** → Derived from hydrosphere | **Nuclear Energy** → Derived from lithosphere |
| **Tidal Energy** → Derived from hydrosphere |  |
| **Solar Energy** → Derived from atmosphere |  |
| **Wind Energy** → Derived from atmosphere |  |

## Non-Renewable Resources

**1. Burning of Fossil Fuels (coal, natural gas, oil)**

- Carbon based substances \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to produce heat

- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Boiling water turns \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Turning turbine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cons:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Energy Transformation:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2. Nuclear Energy**

- Splitting of atom to release huge amount of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Boiling water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Turning turbine produces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cons:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Pros:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Energy Transformation:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Renewable Sources of Energy

**1. Geothermal Energy**

- Use Earth’s internal heat to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Boiling water turns \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Turning turbine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cons:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Pro:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Energy Transformation:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2. Hydroelectric Energy**

- Use movement of water to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Turning turbine produces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Con:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (need large enough body of water), \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Pro:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Energy Transformation:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3. Tidal Energy**

- Use movement of underwater \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to turn \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Turning turbine produces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cons:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(need large enough tidal range)**,** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Pro:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Energy Transformation:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**4. Solar Energy**

- Photon hits \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, causes electrons to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

- Moving electrons = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cons:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Pro:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Energy Transformation:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**5. Wind Energy**

- Use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to produce electricity

- Wind causes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to turn

- Turning turbine produces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Con:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**,** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**,** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Pro:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Energy Transformation:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **→** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_