

**Bozeman AP Environmental Science | Big Idea #5 - Energy Resources & Consumption  
028 - Renewable Energy**

Name: \_\_\_\_\_ Block/Period: \_\_\_\_ Date: \_\_\_\_\_

**Students:** It is recommended that you watch the video with subtitles ON; be prepared to pause and rewind. The video is ~10 minutes long, but this worksheet will take you around ~30 to 35 minutes to complete. There will be a review / discussion afterwards requiring you to record corrections AND summarize additional material / information.

Description (-½ point for each time the rubric is not followed)	Point Value
Each question has been answered	0   ½   1
Each question has been answered in a full sentence	0   ½   1
Each answer has avoided 'it' or 'they' statements, by being clear on the topic of the answer	0   ½   1
<i>Review: Answers that were incorrect are corrected, in a different color</i>	0   ½   1
<i>Discussion: 2 OR more summary statements of the additional material / information, in a different color</i>	0   ½   1
Score:	____ / 5

1. **Explain** why we will inevitably move to Renewable Energy.

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2. **Describe** why Wood is not a Sustainable form of Renewable Energy.

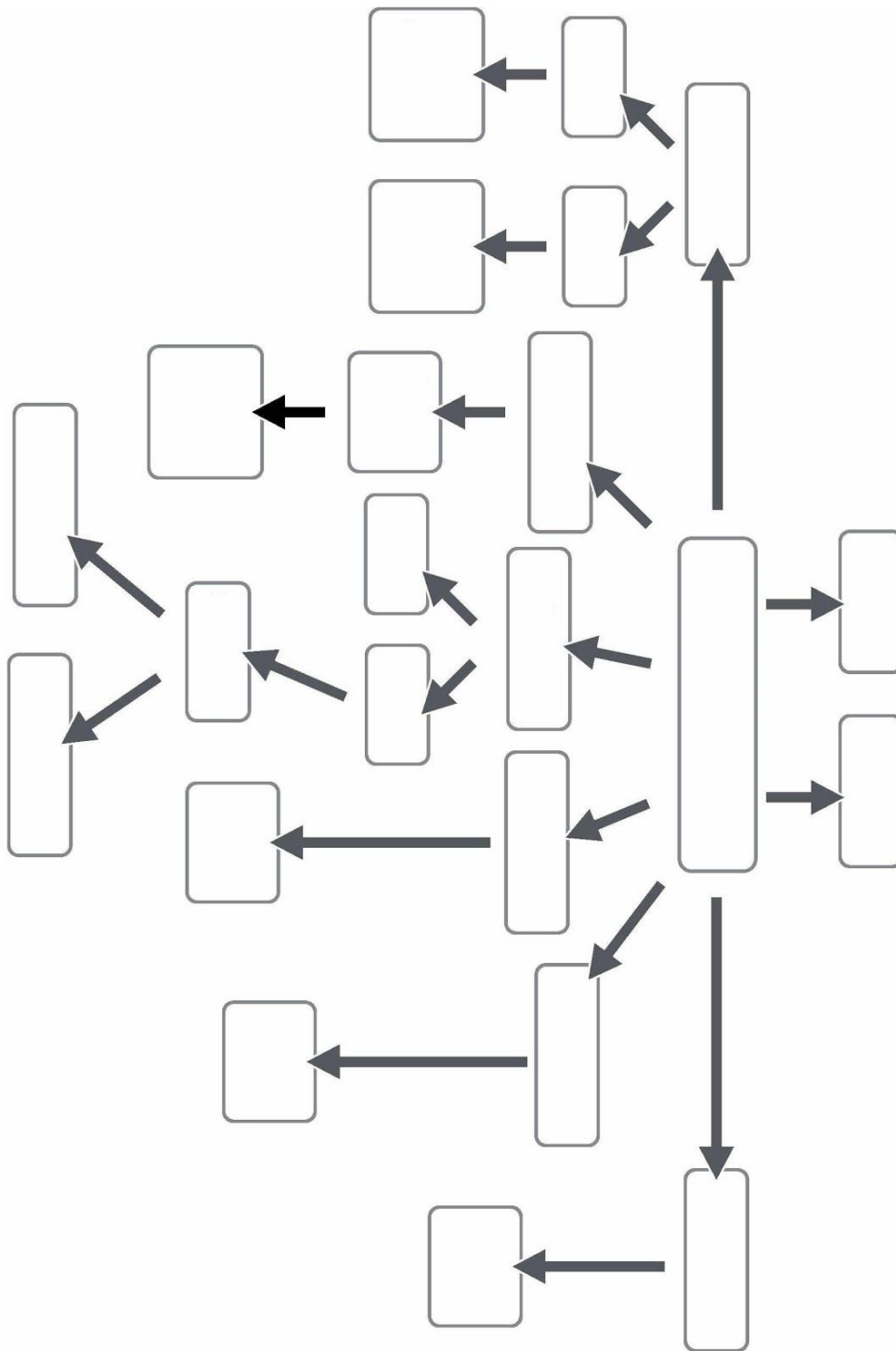
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3. **Describe** what the principle problem is with Hydroelectric power.

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4. Listen to Mr. Anderson describe the various parts of the concept map, and pause after he reveals a new word, and filling in that word.



5. **Analyze** why our civilization has been using Non-renewables rather than Renewables.

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6. **Describe** when the Energy Returned Over Energy Invested (EROEI) becomes useful / profitable.

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7. **Define** Biomass Energy.

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8. **Explain** the problems with using Biomass as a form of energy (easy ways that developing countries use).

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9. **Analyze** why Ethanol (fermenting sugars) is a positive EROEI for places like Brasil.

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10. Large Scale Hydroelectric has an EROEI of \_\_\_\_\_.

11. **Describe** the two types of Small Scale Hydroelectric power generation, giving their EROEI.

i. \_\_\_\_\_

\_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

12. **Describe** *Passive* Solar Energy.

\_\_\_\_\_

\_\_\_\_\_

13. **Describe** the three types of *Active* Solar Energy.

i. \_\_\_\_\_

\_\_\_\_\_

ii. \_\_\_\_\_

\_\_\_\_\_

iii. \_\_\_\_\_

\_\_\_\_\_

14. **Describe** Geothermal Power.

\_\_\_\_\_

\_\_\_\_\_

15. Large Scale Wind Power has an EROEI of \_\_\_\_\_.

**16. Analyze** why Hydrogen power would be the ultimate Renewable Energy (assuming we can find a clean way to make it).

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**17. Explain** why any change to Renewable forms of energy will take time regardless of economic incentives.

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