Bozeman AP Environmental Science | Big Idea #5 - Energy Resources & Consumption
025 - Nuclear 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
Review: Answers that were incorrect are corrected, *in a different color*	0 | ½ | 1
Discussion: 2 OR more *summary* statements of the additional material / information, *in a different color*	0 | ½ | 1
Score:	_____ / 5

1. **Describe** the International Nuclear Event (INE) scale.
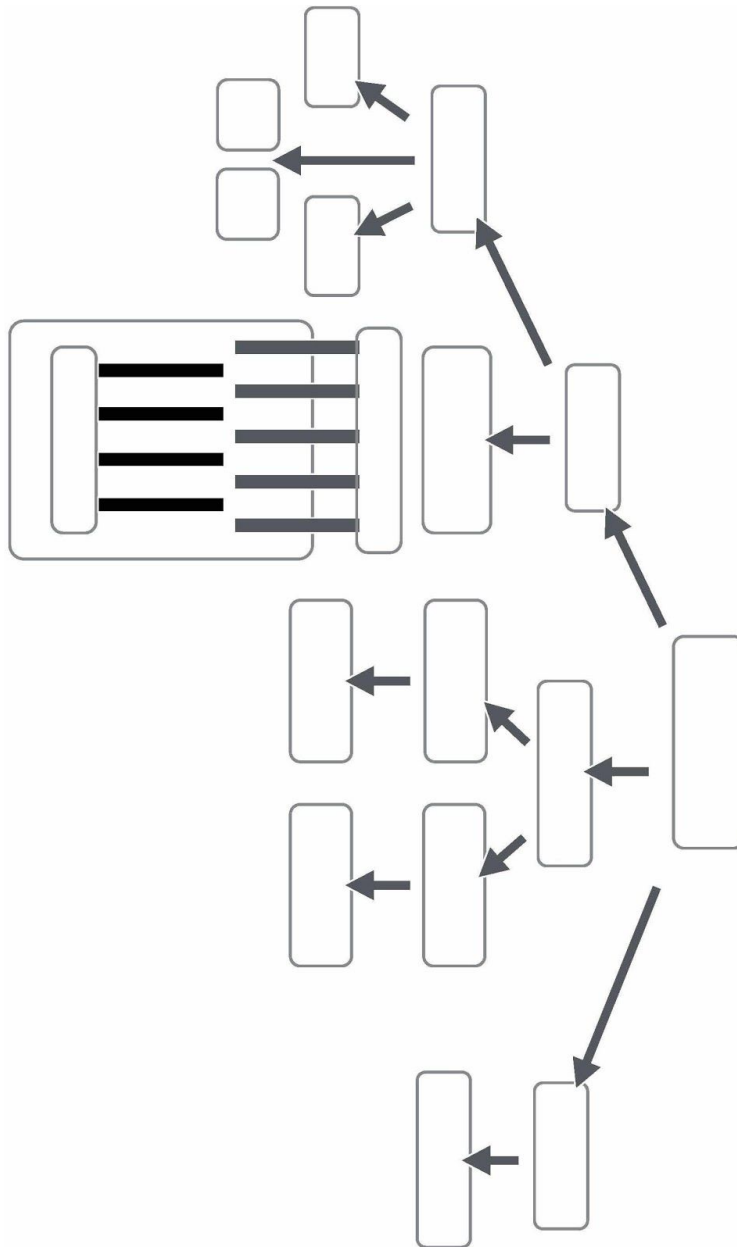
   _____

2. **Fill-in & Describe** the INE Nuclear Disasters listed in the video.

Disaster Name	Description

3. **Describe** why Nuclear Power is being revisited as a source of energy.

   _____

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.

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5. **Explain** the process of Fission in Uranium-235 that makes Nuclear Power possible.

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6. **Analyze** why the fuel rods are not completely made of Uranium-235, but are made mostly of Uranium-238.

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7. **Label & Describe** the #'s in the diagram below.
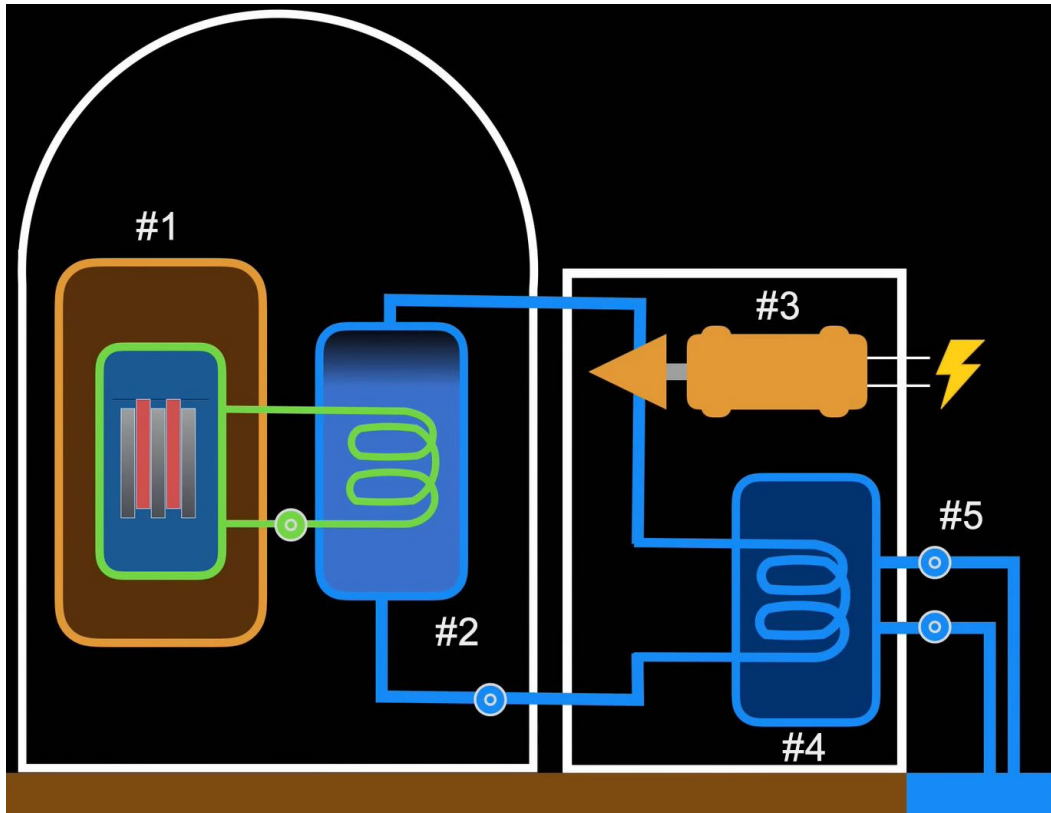
	Label	Description
#1		
#2		
#3		
#4		
#5		

8. **Explain** what we do with old (depleted) fuel rods.

_____

_____

_____

_____

9. **Define** Half-Life.

_____

_____

10. **Attempt & Calculate** (*BEFORE* watching the solution) the practice Problem:
    a. Radium has a half-life of 1500 years. How long will it take for 240 kg of Radium to decay down to less than 10kg?

11. **Describe** what happens when the containment of the core fails.

_____

_____

12. **Describe** the repercussion to the local population if a core were to release radioactive elements to the environment.

_____

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13. Explain why there may be more Nuclear Power plants in the future.

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