

Ryan Ravenelle  
From Chemical Engineering to Lithium Innovation

1. What is the main purpose of the Thacker Pass Project?

- A. To produce oil for transportation
- B. To mine lithium for batteries and energy storage
- C. To create solar panels
- D. To manufacture smartphones

Answer: \_\_\_\_\_

2. Why did Ryan Ravenelle originally join the mining industry?

- A. He always dreamed of being a miner
- B. His family owned a mining company
- C. An opportunity opened up near his hometown in Nevada
- D. He wanted to become a geologist

Answer: \_\_\_\_\_

3. According to Ryan, what is one major difference between undergraduate school and graduate school?

- A. Graduate school has fewer classes
- B. Graduate school focuses more on independent problem solving and research
- C. Undergraduate school is more difficult than graduate school
- D. Graduate school does not involve teamwork

Answer: \_\_\_\_\_

4. Why is lithium considered an important resource today?

- A. It is mainly used to build roads
- B. It is a major ingredient in batteries for electric vehicles and energy storage
- C. It replaces gasoline in engines
- D. It is used mostly in food production

Answer: \_\_\_\_\_

5. What challenge did Ryan mention engineers often face?

- A. Having too much free time
- B. Only working alone
- C. Balancing technical solutions with economic costs
- D. Avoiding communication with coworkers

Answer: \_\_\_\_\_

6. Which purification method did Ryan mention is used in lithium processing?

- A. Freezing
- B. Crystallization
- C. Magnetism only
- D. Boiling seawater

Answer: \_\_\_\_\_

7. What advice did Ryan give students preparing for careers?

- A. Focus only on grades
- B. Avoid extracurricular activities
- C. Develop communication and problem-solving skills
- D. Stay in one career path forever

Answer: \_\_\_\_\_

\*\*\*Written Response Questions\*\*\*

8. Explain why lithium has become such an important resource in today's world. Include at least two examples from the transcript.

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9. Ryan discussed the importance of communication skills for engineers. Why are communication skills important in technical careers, and how can students improve them while in school?

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10. Describe one challenge engineers at Lithium Americas face when developing the Thacker Pass Project. How do they work to solve that challenge?

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