

# Critical Thinking

## Kryptonite!

In today’s episode, we find Outback Jack and his clever partner, Diego, seeking knowledge and adventure in an exotic land. They are in a forest searching for Kryptonite, the glowing, green rock from the distant planet Krypton. Jack and Diego don’t know much about Kryptonite, but they do know that it is unlike any rock found on Earth.

Suddenly, Diego stubs his toe on a mysterious green stone.

**Diego:** Jack, look! I think we’ve finally found it! Have you ever seen anything like this? The color, the luster—it must be from Krypton!

**Jack:** I think you’re right, pal! This shiny green nugget must be from outer space!

**Diego:** But Jack, no one will believe us unless we prove it scientifically.

### One Week Later

**Jack:** Diego, look at how it shines! It really looks like our mystery rock comes from a faraway galaxy! Just to be sure, though, let’s compare our rock’s properties to the properties of different rocks on Earth.

### One Month Later

**Diego:** Well, Jack, the density, hardness, and streaks of our rock match those of an emerald. It looks like our “Kryptonite” was nothing more than a common gemstone. We were wrong. It’s a good thing we used scientific methods!

## USEFUL TERMS

**galaxy** a system of stars, dust, and gas held together by gravity

**properties** the qualities that something has

**emerald** a valuable stone that is bright green

## ASKING QUESTIONS

1. What question did Jack and Diego want to answer?

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**Critical Thinking** *continued*

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**FORMING A HYPOTHESIS**

2. What hypothesis did Jack and Diego form about the mysterious rock?

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**TESTING THE HYPOTHESIS**

3. How did Jack and Diego test their hypothesis?

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**ANALYZING RESULTS**

4. How did Jack and Diego analyze their results?

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**DRAWING CONCLUSIONS**

5. After Jack and Diego analyzed their results, they concluded that the rock was not from another planet after all. Did scientific methods help them successfully answer their original question? Explain your answer.

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**PREDICTING CONSEQUENCES**

6. What might have happened if Jack and Diego had not tested their hypothesis before announcing their findings to the public?

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