

Grades 4-5

SciGirls, “Super Sleuths”

This series showcases bright, curious real girls putting science and engineering to work as they answer questions and make unexpected discoveries in the world around them. In this episode, at a forensics summer camp, super sleuths Emi and friends team up with real forensic scientists to solve the mysterious theft of the priceless "Queen of the Forest" ceremonial mask.

After watching this episode, choose from the following questions and/or tasks to extend your learning

Question Box 1

- Using evidence from the TV show, explain why “Super Sleuths” is a good title for this TV program.
- Identify specific details in the TV Show that focus on the author’s purpose.
- What is this program “saying”? Cite evidence to support your analysis.
- Provide at least two quotes of evidence that support the main claims or reasons.

Setting the Stage:

- What does the word “forensic” mean?
- What are the girls learning at forensics summer camp?
- What is the mystery the girls are trying to solve?
- Describe the opening scene when Jake and Izzy begin to watch the mystery mask movie. How does this set the mood for the episode?

Identify the Problem:

- What is the importance of a “briefing”? Retell the briefing the girls receive about the missing mask.
- Who are the suspects in the case of the missing mask?

Mentor Moment:

- What makes Lindsey a forensics expert?
- Describe the scene that the girls come to investigate at Camp Raven?
- What is Locard's Exchange Principle?
- What makes Lindsey a forensics expert?
- What advice does Lindsey give to the girls while investigating the inside of the cabin?

Collect Evidence:

- What are the steps involved in collecting evidence at a crime scene?
- What job is each girl responsible for while collecting evidence?
- Why do the girls number all the evidence collected?
- Why does the evidence collected need to be sealed? Why is this important?

Analyze Evidence:

- What is an evidence board? What type of information is included on the board?
- What suspects are left after the preliminary investigation? Why do these suspects

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remain?

- What additional evidence did the girls receive from Lindsey?
- How did this additional evidence change the evidence board? Now what suspect remain?

Analyze:

- What is trace evidence? What is known evidence?
- Explain why the girls use microscopes in their investigation. What important details do the girls discover while using the microscopes?
- What is chromatography?
- Who is the primary suspect after conducting the chromatography test?

Shoe Print Analysis:

- Describe the process the girls use to analyze the shoe prints.
- Who do the girls think is the perpetrator of the stolen mask?

Question Box 2

- What did/do you enjoy about this program?
- What is the one thing you particularly want people to notice when they watch this TV program?
- What were some of the most interesting parts to this program? Explain.
- If you could design and develop a summer camp, what would your camp's focus be and what kinds of related activities would you offer?
- Conduct a microscope activity, visit; [Microscope Activity](#), tell what you learn and why using a microscope helps in an investigation.

Box 3 (Tasks)

- Describe Forensic Science as though you were explaining it to someone in a grade lower than yours.
- How did the SciGirls use science to discover the theft of the ceremonial mask?
- If the mask is worth \$50,000 and the girls received a reward of \$500, how would they divide the money between them? Justify your reasoning.
- Try your skills in solving a crime! Visit [Crime Scene Investigation Activities - CSI Web Adventure](#) for your own forensic adventure!

Box 4 (Enrichment)

- Research and describe with evidence what sort of education you would need to be a forensic scientist.
- What is DNA, and how can it be used by forensic scientists?
- Visit [Super Sleuths](#), click and download the Super Sleuth activity under RELATED LINKS and complete.

Box 5 (Extend/Real-Life)

- Research and discuss which types of current organizations use forensic science as a regular part of its business.
- Is this the job for you? Visit [FBI: Inside the Crime Lab](#) and find out!