Wildlife CSI

Supplies needed for this activity:

- A good story of your choice that is age-appropriate outlining the "crime in the forest"
- 10 Compound microscopes
- 2 slides each of 8-9 known animal hairs and 1-2 evidence
- A copy of the worksheet for each student
- "What to do" sheets if this is a festival or STEM event atmosphere
- Picture of each known animal
- Pencils
- Colored pencils (optional)

Set up each microscope. Place a different hair sample under each microscope, including unknowns and focus the microscope at 10x. Match the picture sheet with the animal hair slide as a visual aid.

Set the stage by telling the students about the crime that happened in the forest and pass out the worksheet.

For example, we have used the following story:

"Mr. Rabbit came home from a long day of hopping through the forest to find that his carrots were missing! Whoever stole his carrots left some evidence behind. Your job is to look at the evidence left behind by the thief and compare it to the hairs taken from animals that live around Mr. Rabbit's home. These animals are our suspects. Look at things like color, thickness, and any patterns you see in or on the hair to find out which animal is our main suspect."

Students move from microscope to microscope and draw each sample and note observations like color, relative width, etc. Then, they compare the unknowns to the known samples and circle the animals that they think committed the crime. Do not tell! Use Socratic teaching to guide students, but really make them look at their samples and drawings. After individuals have had a chance to think about it, feel free to let them discuss it in small groups. Once they have come to the answer, then fill in the rest of the details of the story if you want to do so or venture into creative writing and have the students present possible explanations.

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A crime has been committed in the forest!! The criminal left some evidence behind. Examine the hairs and other samples collected from local wildlife to figure out who did it.

What to do:

- Use the microscopes to look at the hair samples from local animals and the hair samples from the crime scene.
- Draw a picture of each hair sample on your worksheet and describe what you see (color, relative thickness, any patterns you see).
- Compare the evidence from the crime scene to your known hairs from suspects and circle the animal(s) that you think were at the scene of the crime.
- How do you know?

This activity was sponsored by the Frostburg State University Wildlife Society. Hairs were collected and donated by its members. Some hairs and other samples were also donated by students at Old Forge Elementary School, Hagerstown, MD.