**Hair Assessment Lab**

**Background:** Mr. Palermo was found unconscious in his classroom early Tuesday morning. When he regained consciousness he was questioned by investigators and made this statement: “I remember opening the door to my classroom and immediately felt something hit me in the head and that is the last thing I remember.” The forensics team found hairs at the scene and on Mr. Palermo. Investigators have narrowed down the suspects to 4 individuals. Mr. Palermo has been dog sitting for the last few weeks. Suspect 1 and 4 do not own a dog. Suspect 2 has a dog named Ozzie and Suspect 3 has a cat named Djok. Help determine which suspect committed this terrible crime so Mr. Palermo can feel safe again in his classroom.

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| --- | --- | --- |
| **Crime Scene Hair Characteristics** | **Hair evidence 1** | **Hair evidence 2** |
| **Color** |  |  |
| **Medulla Pattern** (continuous, interrupted, fragmented or absent) |  |  |
| **Medullary Index (**estimate the proportion of the width that is taken up by the medulla, e.g. 1/4, 1/2, 3/4, etc.) |  |  |
| **Animal or Human?** |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Suspect**  **Hair Sample** | **Color** | **Medulla**  **Pattern** | **Medullary**  **Index** | **Animal or**  **Human** |
| **#1** |  |  |  |  |
| **#2** |  |  |  |  |
| **#3** |  |  |  |  |
| **#4** |  |  |  |  |
| **Mr. Palermo** |  |  |  |  |

1. Did any of the suspects hair samples match that of the hair(s) found at the crime scene? Explain.
2. Why was Mr.Palermo’s hair tested as well?