Name:
Date:

Fiber Analysis

Scenario: The team of investigators have found a fiber sample from the scene of the heist. They want to know what material it matches.

Materials:
- Microscope
- Sample #1 :_____
- Sample #2: _____
- Sample #3: _____
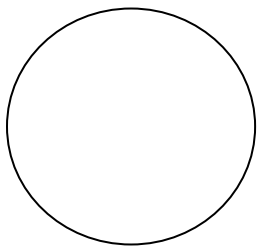- Sample #4: _____
- Sample #5: _____
- Mystery Sample

Procedure:
1.) Set up Microscope
2.) Prepare slides of different fiber samples.
3.) Analyze each fiber sample - draw, label and use adjectives to describe each sample.
4.) Analyze the mystery fiber sample.
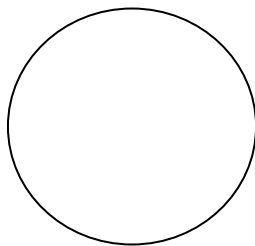5.) Compare and contrast the mystery fiber sample to the other samples.

Data Collection:

Mystery Sample: _____

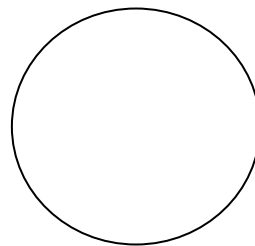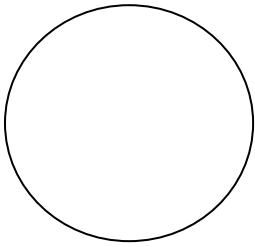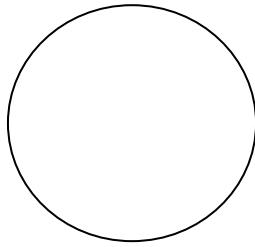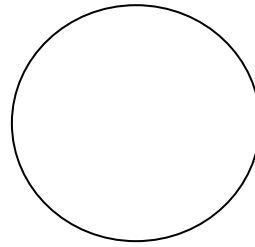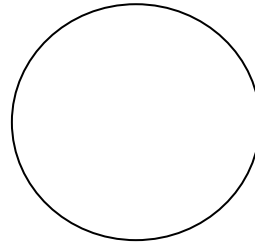4x   10x   40x
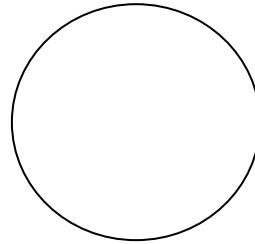
Sample #1: _____

| 4x | 10x | 40x |

Sample #2: _____
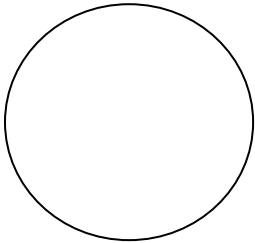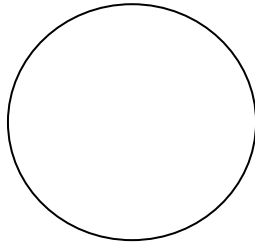
| 4x | 10x | 40x |

Sample #3: _____
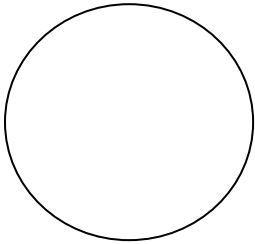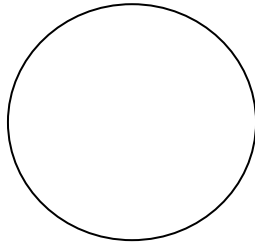
| 4x | 10x | 40x |

Sample #4: _____
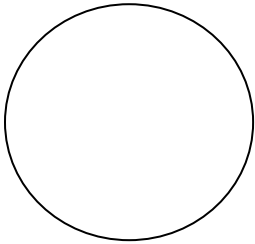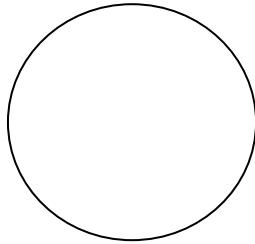
| 4x | 10x | 40x |
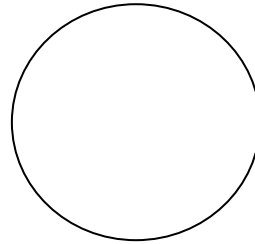
Sample #5: _____

4x	10x	40x

Discussion:

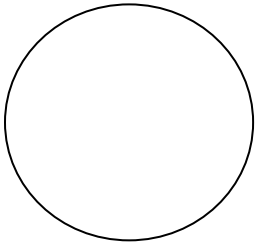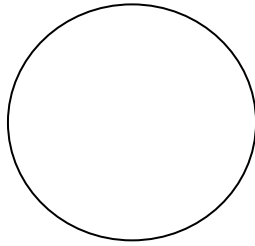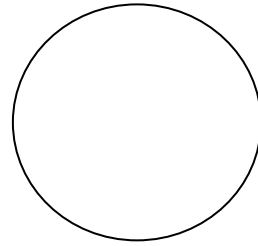1.) Compare and contrast the natural materials (cotton, jupe, wool) with the synthetic materials (nylon and polypropylene). How are they similar, how are they different?

2.) Based on your evidence, what kind of material do you think the mystery sample is? Use specific evidence in your answer.

3.) What else could we do with the fibers to compare and contrast them? What other experiments could we create to find differences between the different types of fiber materials?

4.) Conclusion - what did you do and what did you learn?