**REMEMBER:**

* **CLEAN UP AFTER YOURSELF!**
* **ANSWER ALL OF THE QUESTIONS IN THIS PACKET!**
* **DON’T EAT THE MATERIALS!**
* **HAVE FUN!**

**Who Stole Julianna’s Cookies?**

**School/Team: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ B- \_\_\_**

**Names: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**The Crime:** After a late night out with her friends, Julianna – heiress to the famous Keebler Elves Company - went out for hot chocolate with her friends and then went to bed. In the morning, Julianna woke to find her grandmother’s cookies and cookie recipes to be stolen. She found her watch dog sleeping in the robbed room. Police found eight suspicious white powders in the apartment area, three samples of hair, and fingerprints. There were fingerprints found on the safe and a partial one on the doorknob. They also found fibers caught on the edge of the wood dresser. A ransom note was found at the crime scene saying: “If you would ever like to see this recipe again, meet me at dumpster behind the clubhouse alone with $50,000 cash. The detectives have narrowed it down to five suspects but need your help to solve the rest. The suspects are as follows: Mickey, Donald, Goofy, Daisey and Minnie. The evidence is labeled as follows:

**FOR SCORING USE ONLY:**

Part 1: \_\_\_\_\_\_\_\_\_/50

Part 2: \_\_\_\_\_\_\_\_\_/10

Part 3: \_\_\_\_\_\_\_\_\_/5

Part 4: \_\_\_\_\_\_\_\_\_/10

Part 5: \_\_\_\_\_\_\_\_\_/25

**TOTAL:** \_\_\_\_\_\_\_\_\_/100

***Part A***

* CS1= Powder #1
* CS2= Powder #2
* CS3= Powder #3
* CS4= Powder #4
* CS5= Powder #5
* CS6= Powder #6
* CS7= Powder #7 & 8
* CS8= Powder #9 & #10

***Part B***

* CS9= Hair 1
* CS10= Hair 2
* CS11= Hair 3
* CS12= Fiber #1
* CS13= Fiber #2

***Part C***

* CS14= Ink Sample from Note

***Part D***

* CS15 = Fingerprint on Doorknob
* CS16= Fingerprint on Safe
* CS17 = DNA on Fibers from Wood Dresser

**Mickey:** is a personal chef and an avid cookie collector. He is really into saltwater fish and owns many aquariums. He owns both a dog and a cat and claims to be getting off work at the time of the supposed crime. However, he doesn’t have anybody to back him up. He was found wearing polyester sweater with his cotton chef jacket. A pen was also found in his back pocket. A suspicious white powder like the one found at the crime scene was found on him.

**Daisey:** is a housewife and Julianna’s biggest fan. Unfortunately, her husband and her are going through a divorce and she is at risk of losing everything. She claims to be up all night working in the kitchen in her linen dress and a cotton apron hoping to win back her husband’s heart with her marvelous cooking skills making sugar sculptures. The only witness that saw her in the kitchen all night was her cat, Fluffy, as her husband did not come home. A white powder and pen was also found in her possession.

**Goofy:** recently had his heartbroken when his girlfriend of 5 years left him for an infamous politician. He is a high school science teacher. Goofy Claims to be cleaning up the lab last night from the kids fruit juice concentration experiments and a white powder was found on his sleeve when the crime was committed. He was wearing a white polyester lab coat with a pen in his pocket and a wool sweater.

**Minnie:** was unpacking from her beach trip last night. She was recently diagnosed with a sickness and her doctor prescribed a heat pack, alka-seltzer, and jell-o to settle her stomach. She was once a famous singing artist but hasn’t sold any albums in years. She claims to be sound asleep with her dog wearing a silk nightgown at the time of the crime. On her nightstand was a notepad and pen. She had a Band-Aid on his right arm.

**Donald:** is a CEO of a Cookie company and just got back from a business trip visiting the new bakery headquarters in Antarctica. His diet has been poor and he recently developed scurvy. Donald’s job is his life and he doesn’t have much time for a relationship. He owns several cookie factories and several different bakeries and substances. Sadly, with the economy down, business is lacking and he really needs some new ideas. He was wearing a linen suit with a silk tie when he got off the plane that landed right before the crime was committed. He had a Band-Aid on his right arm.

**Answer Sheet**

**Part A White Powders: (50 points)**

**What is CS1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What is it used for? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Who could have had it on them? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What is CS2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What is it used for? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Who could have had it on them?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What is CS3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­\_\_\_\_\_**

**What is it used for? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Who could have had it on them? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What is CS4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What is CS5: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What is CS6: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What are CS7: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ What is CS8: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part B Hair: (10 points)**

**What type of hair is CS9: (please circle) Human Dog Cat**

**What type of hair is CS10: (please circle) Human Dog Cat**

**What type of hair is CS11: (please circle) Human Dog Cat**

**Who’s hair does this most closely match? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What type fiber is CS12:(please circle) Animal Vegetable Synthetic**

**What type fiber is CS13:(please circle) Animal Vegetable Synthetic**

**Give an example of each of the three above fiber types: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Ink Sample –Perform paper chromatography on each of the ink samples and tape and label them below. (5 POINTS)**

**Which suspect’s pen most closely matches the one found at the crime scene? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part D Fingerprints: (10 points)**

**What are the three general types of fingerprints? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Who’s fingerprints most closely match the fingerprint on the doorknob? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Who’s fingerprints most closely match the fingerprint on the safe? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part E Analysis: (25 points)**

**Please explain how the evidence from the crime scene incriminates or eliminates the suspects. Account for all of the evidence.**

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