

## 1. A Scientific Event You Wish You Could Have Witnessed

Choose a major scientific discovery, experiment, or breakthrough. Explain why you would want to witness it and what makes it meaningful to you or to science.

If I could go back in time to witness any scientific discovery, I would go back to when the early cavemen were about to discover fire. The interesting part though, is that I would want to make fire before the other cavemen and take the fame from whoever originally first discovered it. Since I would go back with my current knowledge, I would be the smartest and first caveman to discover fire. I would revolutionize the little society that they had previously established and try to convince them that I was a magical figure.

I would probably walk up to a group of cavemen that were shivering and starving to death in the cold night and grab some sticks. While they questioningly watched I would make some sparks and eventually reach the desired flame. As soon as this blast of heat and light appeared in front of me, the group would start staring at me and my creation in awe. After a few minutes of dealing with their repeated screaming, I would add a few more sticks to the pile and move on to my next plan.

After creating fire, I would then want to prove to these people that I could control this powerful thing. Before entering the time machine that sent me to this time, I would fill my pockets with some materials that I could throw into the flame. I would bring jars of Sodium, Potassium, Copper, and Lithium to toss into the fire and shock the cavemen. As I throw each element in, the color

of the fire would change from the regular orange to yellow, purple, green, and dark red. An entry from Science Notes explains that this happens because the “heat from a flame gives atoms enough energy that their electrons become excited. Dropping to a more stable energy state involves the release of photons. These photons have a frequency (light color) that is a characteristic of the element.” This absolutely mind blowing experience would verify to the cavemen that I was not just a normal caveman and would lead them to see me as a greater being. In reality, this is just a normal experiment that I have done in school.

I believe that fire is one of the most important discoveries mankind has made in its long history and by showing them that it can be controlled and used, I would accelerate civilization. Fire opened the door to many discoveries and improved the lives of every human being. Fire let early humans cook food, warm their surroundings, and create tools, laying the foundation for the advanced civilization we have achieved today. Without fire, we would still be huddling together in caves, eating raw food, and hiding from whatever predator comes our way. By showing them the potential that each and every one of them had I would inspire them to be curious and experiment, something that was crucial to the success of early humans and led them to evolve into our current state.

#### Works Cited:

Helmenstine, Anne. “Flame Test Colors and Procedure (Chemistry).” Science Notes and Projects, August 24, 2024. <https://sciencenotes.org/flame-test-colors-and-procedure-chemistry/>.