

James Mars & Tyler Barnes

*Let's Get Fired Up!*

In choosing our project, we both shared a similar interest in firefighting and have close connections to firemen. This led us to a project centered on the safety of firefighters. We settled on testing fire resistant materials to determine which material is more likely to self-extinguish one ignited. We burned several pieces of fire resistant and regular clothing in a controlled environment and documented the performance of each material. Our results showed that the fire resistant clothing that was 88% cotton and 12% nylon was the fastest to self-extinguish. This study concluded that the fire resistant material containing 88% cotton and 12% nylon was the most suitable fabric to resist direct flame. If we were to use this information to fashion a new material, we would use an 88%/12% cotton and nylon blend, lined with a 100% aramid fiber.