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Without a Match

The purpose of this experiment is to test the most efficient way to start a fire. This investigation is useful for people who are interested in advanced wilderness survival techniques or for anyone in a situation where they need to create a fire. In this experiment four types of techniques were used to try to start a fire. The first method tested was with a magnifying glass and the sun. The second method tested was with a nine-volt battery and steel wool. The battery was rubbed on the steel wool. The third method tested was with flint and magnesium. The magnesium was shaved into pieces using a file. Using the flint, a striking motion was used to create a spark towards the magnesium scrapings. The final method tested was with a flat piece of wood and a wood dowel. The dowel was spun by hand on a depression in the piece of wood. The time it took to start a fire using each of the above techniques was recorded in seconds. Data showed the average time to start a fire using steel wool and a battery is 6.3 seconds. While the average time to create a fire with magnesium and flint and a magnifying glass and the sun are 18.3 seconds and 303.6 seconds, respectively. In conclusion, the most efficient way to start a fire, without the use of matches or a lighter, is by using steel wool and the nine-volt battery according to the data collected in this experiment.