**Student Worksheet: Title**

**Directions**: Read the online *Science News* article “[How Ötzi the Iceman really got his tattoos](https://www.sciencenews.org/article/otzi-iceman-tattoos-anthropology-mummies).” Then answer the following questions as directed by your teacher.

**Before Reading**1. Why do you think tattoos last longer than simply marking your skin with a permanent marker? What do you think causes tattoos to fade over time?

2. "Ötzi the iceman" lived around 3300 BCE and is the oldest known human to have tattoos. What are some reasons that ancient people might have had for getting tattoos?

**During Reading**

1. Where and when was Ötzi the mummy discovered?

2. Briefly describe the method by which scientists initially thought Ötzi got his tattoos.

3. Besides carrying out experiments, what other evidence did Aaron Deter-Wolf and his team use to devise a new theory about how Ötzi got his tattoos?

4. How many tattooing methods did the researchers test?

5. Explain the process for the tattooing method that used a needle and thread.

6. Describe two specific observations by researchers that supported the conclusion that Ötzi got his tattoos via the "hand poke" technique.

**After Reading**1. Quantitative evidence refers to measured data containing numbers and units. In contrast, qualitative evidence relies on descriptions. Which type of evidence is mentioned more in this article? Support your answer with a specific example. Then, describe one way that the lesser-used type of evidence could be integrated into a similar experiment.

2. How many test subjects were tattooed in this study? The answer to this question is crucial, as the sample size is an important factor used to assess the validity of scientific studies. Generally, experiments with a larger number of test subjects yield more reliable results than those with only a few. Could the sample size of this study lead to misleading results?

3. The researchers in this study took an unconventional approach by testing their tattooing techniques on human test subjects. With that in mind, describe one potential reason for the small sample size in this study.