

Ali Betsch
Racer Ready?

The purpose of this project was to test if the ski wax type (warm, cold, matches snow temperature) affects the, ski speed. I hypothesized that the wax that matches the snow temperature, which was CH 7, would make the skis the fastest.

This experiment involved placing a uniform block of snow onto the different waxed skis (CH 4, CH 7, CH 10) and measuring the speed it travels down the ski (seconds). A ski with no wax was used as a control. The ski speed was measured by a person who held a timer, and measured when the block of snow started and finished in seconds.

The data collected did not support my original hypotheses. The average ski speed for ski wax type 1 (CH 4) was 2.6 seconds compared against ski wax type 2 (CH 7) which was 2.1 seconds, and ski wax type 3 (CH 10) which was 2.0 seconds. The snow temperature on the day of the experiment was -3.5°C therefore CH 7 would have been the correct wax to use. Additionally, the data range (average plus and minus random error) for ski wax type 1 (CH 4) was 2.0 to 3.2 seconds while the data range for ski wax type 2 (CH 7) was 1.4 to 5.6 seconds and the data range for ski wax type 3 (CH 10) was 1.0 to 3.0 seconds. The control had a data range of 103.5 to 437.7 seconds. Thus, there is no statistical difference for the three ski wax types, but there is between the control and the waxed skis.

These findings lead me to conclude that you do need wax on your skis, but the type of wax does not affect the ski speed. However, if my measuring technique used a gate and laser mechanism then this would most likely reduce random error and a statistical difference would be evident in wax types.