

Name: _____
 Section: _____
 Date: _____

In this experiment, we will investigate the relationship between the frequency and the wavelength of a wave. We will use a string fixed to a wall on one end and a hand on the other. The hand will move up and down sinusoidally, creating a wave pulse that travels along the string.

Frequency (Hz)	Wavelength (m)
1.0	0.50
2.0	0.25
3.0	0.17
4.0	0.13
5.0	0.10
6.0	0.08
7.0	0.07
8.0	0.06
9.0	0.05
10.0	0.04

RESULTS



The results show a clear inverse relationship between frequency and wavelength. As the frequency increases, the wavelength decreases. This relationship is consistent with the wave equation $v = f\lambda$, where v is the wave speed, f is the frequency, and λ is the wavelength.