

Wave Interactions

PLEASE ACTUALLY WATCH THE VIDEOS (I know you just want to skip them and try to answer without watching them but please don't.

Watch the first 4:45 minutes of [Boseman Wave Interference](#).

1. Explain what happens in constructive interference.

2. Explain what happens in destructive interference.

Watch the first 5 minutes of this video by [Professor Dave on Interference, Reflection, and Diffraction](#)

3. What happens when two waves approach each other and hit, if they are both on the top side of the line?

4. What happens in destructive interference?

5. What happens when two waves are "in phase"

6. How do noise cancellation headphones work?

7. What happens in diffraction?

Watch the ENTIRE 7 minute video on the [Double Slit Experiment](#)

8. Explain what his demonstration in the lake is showing.

9. What does the box with the two slit show the observers and why.

Watch this entire 3:40 video on [speaker interference](#). I know this is a bit dry, but this actually applies constructive and destructive interference in a way you can observe which is cool.

10. Explain what happens in this video and why.

For fun, here is a pretty cool video on an [anechoic chamber](#)!