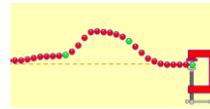


Wave Interference [Activity](#) is a demo that uses three simulations: *Waves on a String*, *Wave Interference*, and *Sound*.
phet.colorado.edu

Learning Goals: Students will be able to

- Predict the pattern of a reflected wave
- Relate two dimensional representations of waves to three dimensional waves
- Explain wave patterns from interfering waves (*Apply the superposition principle to water, sound and light*)
- Recognize the Doppler effect and predict the change in frequency that occurs.

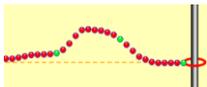
1. What will this wave look like after it reflects?



Fixed end

- A.
- B.
- C.
- D.

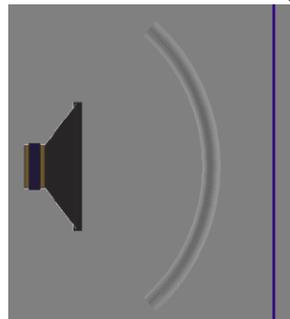
2. What will this wave look like after it reflects?



Loose end

- A.
- B.
- C.
- D.

Draw what you think this wave will look like after reflecting off the barrier.



3. Which one is the reflection pattern?



Wave pulse from speaker



A



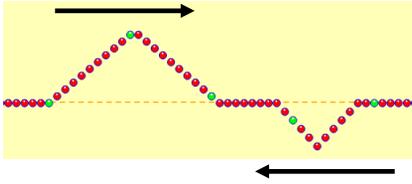
B

“Sound waves are three dimensional.”

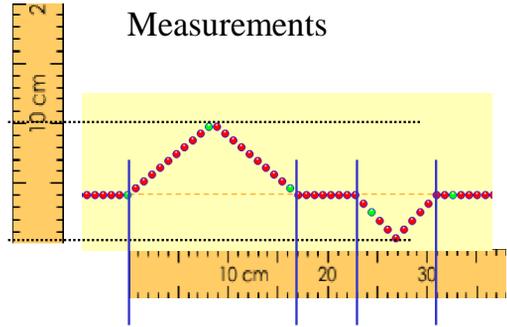
Talk to your partner:

- What evidence you have that supports this.
- How the wave could be represented
- How would reflection change?

Sketch what you think the pattern will look like



Measurements



Paused clips

