

S8P4. e. I can analyze and interpret data to predict patterns in the relationship between density of media and wave speed.

How Do Different Mediums Affect Wave Speed Video Notes



1. The speed of electromagnetic and mechanical waves are actually the exact _____ when they travel through different types of _____.
2. What do electromagnetic waves travel fastest through? _____ What do electromagnetic waves travel slowest through? _____

Quick Check for Understanding!

Would electromagnetic waves travel faster through a pitcher of lemonade or through you? Explain your answer. _____

3. What is one of the biggest differences between mechanical and electromagnetic waves? _____
4. What do mechanical waves travel fastest through? _____ What do mechanical waves travel slowest through? _____
5. Why do mechanical waves travel fastest in solids? _____
6. Why do mechanical waves travel slowest in gases? _____

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Quick Check for Understanding!

Which organisms communicated the fastest....animals on land or animals in the ocean? Explain your answer. _____

In summary, electromagnetic waves travel _____ in the _____ of space and _____ down as they go from gases, liquids, to solids. Mechanical waves on the other hand travel fastest through _____ and _____ down as they travel through liquids, gases, and the vacuum of _____

These differences between electromagnetic and mechanical waves are largely because electromagnetic waves _____ need a _____ to travel through like the vacuum of space, and mechanical waves _____ a _____ to travel through like _____. These 2 properties are why their wave speed travel is in _____.