Chapter 27

ENRICHMENT

Use with Section 2

• Wave Properties

High or Low

Vibrating objects make sounds that people can hear. The sound made by a vibrating ruler is affected by the length of the part that is vibrating.

Materials 

- Table or countertop
- Ruler

Procedure and Questions

1. Place the ruler on the table so that half of it hangs over the edge.
2. Hold the ruler firmly against the table, and snap the end of the ruler. Listen to the sound it makes.
3. If more of the ruler were hanging over the edge of the table when you snapped it, how do you think the sound would be different? Why?

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4. Test your answer to number 3. Describe what happened.

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5. If less of the ruler were hanging over the edge of the table, how do you think the sound would be different? Why?

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6. Test your answer to number 5. Describe what happened.

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7. Draw pictures of the three positions of the ruler. Then, draw arrows or other symbols to show how the sound changed in each case. Finally, use the names of the properties of waves to label what happened during this activity.

Properties

- Amplitude
- Wavelength
- Frequency