

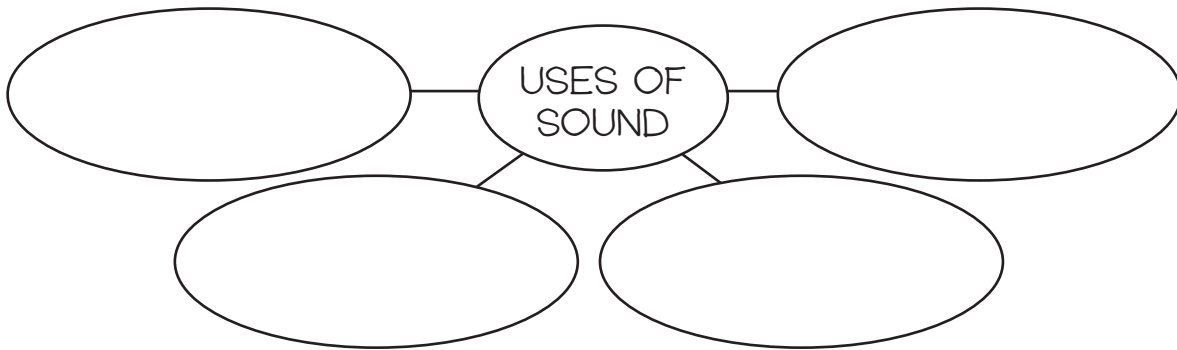
SECTION | SOUND HAS MANY USES.

2.4 Reading Study Guide A**BIG IDEA** Sound waves transfer energy through vibrations.**KEY CONCEPT** Sound has many uses.**Vocabulary****echolocation** sending out ultrasound waves and interpreting the returning sound echoes**sonar** instruments that use echolocation to locate objects**Review**

1. Draw pictures of a sound wave that makes a low-pitched sound and a sound wave that makes a high-pitched sound.

Take Notes**I. Ultrasound waves are used to detect objects. (p. 58)**

2. Complete the cluster diagram with ways that sound can be used.

**A. Echolocation (p. 59)**

3. Bats use echolocation to find food. First, they send out _____.
Next, they receive the _____ to locate their prey.

B. Sonar (p. 59)

4. What does sonar stand for?

5. What are three jobs that may involve the use of sonar?

C. Medical Uses of Ultrasound (p. 60)

6. What are three medical uses of ultrasound?

II. Sound waves can produce music. (p. 60)

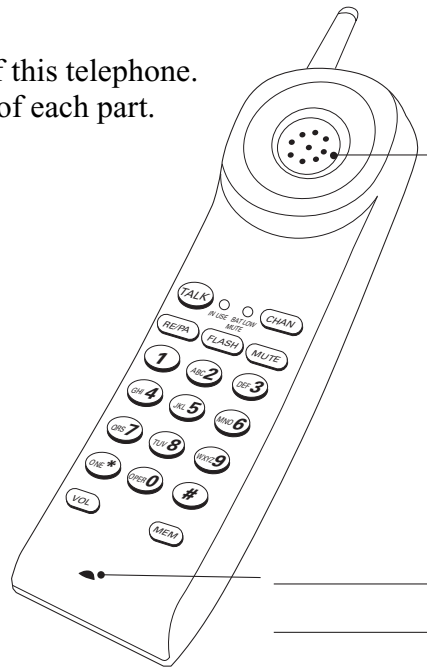
7. There are three main types of musical instruments. Sketch an example of each. Then explain how the instrument vibrates to produce sound waves.



III. Sound can be recorded and reproduced. (p. 62)

A. The Telephone

8. Label the parts of this telephone. Describe the job of each part.



B. Recorded Sound (p. 63)

9. Explain how sounds are stored on a compact disk.
