

**Worksheet: Period and Frequency**  
Integrated Science: Physics/Design

Name: \_\_\_\_\_ Per. \_\_\_\_

1. A string vibrates at a frequency of 20 Hz. What is its period?
2. A speaker vibrates at a frequency of 200 Hz. What is its period?
3. A swing has a period of 10 seconds. What is its frequency?
4. A pendulum has a period of 0.3 second. What is its frequency?
5. You want to describe the harmonic motion of a swing. You find out that it take 2 seconds for the swing to complete one cycle. What is the swing's period and frequency?
6. An oscillator makes four vibrations in one second. What is its period and frequency?
7. A pendulum takes 0.5 second to complete one cycle. What is the pendulum's period and frequency?
8. A pendulum takes 10 seconds to swing through 2 complete cycles.
  - a. How long does it take to complete one cycle?
  - b. What is its period?
  - c. What is its frequency?
9. An oscillator makes 360 vibrations in 3 minutes.
  - a. How many vibrations does it make in one minute?
  - b. How many vibrations does it make in one second?
  - c. What is its period in seconds?
  - d. What is its frequency in hertz?