Doppler Effect Activity

Name: _____ Class: _____EN _____

Purpose: Observe and explain the Doppler Effect.

Materials: Doppler Ball, String.

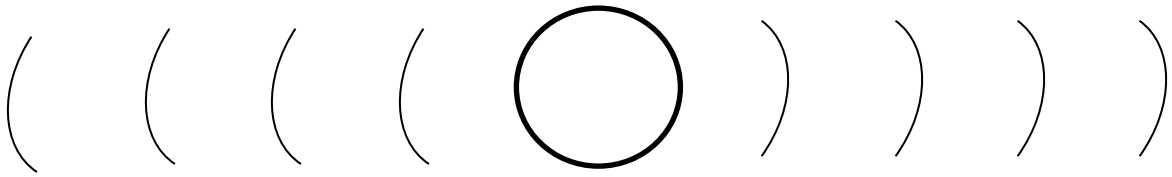
Procedure:

1. Start the buzzer and observe its pitch. Play catch. Throw the ball fast, and without spin.
   a. Describe the pitch of the sound you hear when the ball is going away from you.

   b. Describe the pitch when the ball is coming toward you.

2. Tie a string tightly around the ball. Swing it in a circle above your head. Take turns listening to the buzzer from several feet away.
   a. Describe your observations.

3. The first diagram below shows a stationary ball emitting sound waves.



   a. Draw another identical ball moving to the right. Show how the sound waves would appear to stationary observers.

   b. What would you observe if the ball was emitting light instead of sound?

   a. When the ball is moving toward you?

   b. When the ball is moving away from you?