

Activity 3: Grades 5-8

Frontiers Pop- Quiz

Enter correct quizzes in the FRONTIERS drawing [see below!](#)



S T U D E N T :

T E A C H E R :

- 1) Which chestnut-sided warblers sing the song and when do they do it?
 - a) females in spring
 - b) males in spring
 - c) females in fall
 - d) males in summer

- 2) Based on the answer above, biologist Bruce Byers deduces that the chestnut-sided warbler song is connected with what?

- 3) Anne Savage used infrasound recordings to study elephant vocalizations too low to be heard by human ears. What did she find?
 - a) elephants chat more to strangers than to friends and family members.
 - b) Female elephants rumble more when they are ready to mate
 - c) None of these
 - d) Both of these

- 4) Caitlin O'Connell seeks to prove what with Donna the trained elephant at the Oakland Zoo?

- 5) Elisabeth Kalko studies the sounds bats use to hunt insects and fish. What kind of system is this?
 - a) echolocation

- b) sonar
- c) radar
- d) infrasound

6) How do bats make the sounds they use to hunt prey?

7) David Roubik and his colleagues found that bees can communicate what to each other?

- a) the distance of a food source from the hive
- b) the direction of a food source from the hive
- c) the height of a food source from the hive
- d) all of the above

8) Bees use a series of buzzes to communicate some information to each other, but. Scientists still are not sure how they communicate which kind of information?

- a) the distance of a food source from the hive
- b) the direction of a food source from the hive
- c) the height of a food source from the hive
- d) all of the above

9) How is the Ormia fly able to detect where a crickets' chirps come from?

- a) by detecting the difference in loudness as the sound arrives at each ear
- b) by detecting the time difference between when the sound arrives at each ear
- c) both of these
- d) neither of these

10) How might Hoy's discovery help people like Alan?

NOTE: Quizzes with 100% correct answers can be entered by teachers only into our drawing for a prize. FRONTIERS randomly selects 20 names after each program. Send all correct quizzes in one envelope, along with teacher's name, grade and course, school name and address, where the students watched the show (home or school), and the students' favorite segment. Mail to: FRONTIERS Quiz, Chedd-Angier Production Company, 70 Coolidge Hill Rd., Watertown, MA 02472.

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TEACHING GUIDE

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STUDENT :

TEACHER :

1) Which chestnut-sided warblers sing the song and when do they do it?

- a) females in spring
- b) males in spring**
- c) females in fall
- d) males in summer

2) Based on the answer above, biologist Bruce Byers deduces that the chestnut-sided warbler song is connected with what?

(Defending a territory and acquiring a mate)

3) Anne Savage used infrasound recordings to study elephant vocalizations too low to be heard by human ears. What did she find?

- a) elephants chat more to strangers than to friends and family members.
- b) Female elephants rumble more when they are ready to mate
- c) None of these

d) Both of these

4) Caitlin O'Connell seeks to prove what with Donna the trained elephant at the Oakland Zoo?

(That elephants can communicate via seismic signals traveling through the ground.)

5) Elisabeth Kalko studies the sounds bats use to hunt insects and fish. What kind of system is this?

a) echolocation

b) sonar

c) radar

d) infrasound

6) How do bats make the sounds they use to hunt prey?

(They use their vocal cords, similar to the way humans speak.)

7) David Roubik and his colleagues found that bees can communicate what to each other?

a) the distance of a food source from the hive

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9) How is the Ormia fly able to detect where a crickets' chirps come from?

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c) both of these

d) neither of these

10) How might Hoy's discovery help people like Alan?

(The fly's special ear can serve as the model for sophisticated hearing aid that helps people focus on one source of sound.)