

YEAR 08

Physics Homework

Section 8Ld **‘Ear ‘ear**

p. 167 Questions: 1, 2 and

1. *a. Name four animals that have hearing that is different from ours.*
b. Explain how their hearing is different.
2. *Why do dogs hear a dog whistle but humans cannot?*
3. *A ‘bat box’ detects sounds made by bats and converts them into sounds that humans can hear. Why do scientists use bat boxes?*

1. Dolphin, mouse, cat and dog.
2. Because the sound of the dog whistle is at a frequency that the human ear cannot hear. **Frequencies audible by humans** range from **20 to 20,000 Hz**. The dog’s range is from 67 to 45,000 Hz. **A dog whistle’s sound is at average 40,000 Hz**. That is why we can never hear it.
3. In order to observe the **behaviour of bats** as well as the way they **communicate** with each other.