Unit 01

How Sound Is Generated

(Determiners) each

- 'Each' is used to refer to every one of two or more people or things, when you are thinking about them separately. 'Each' is usually followed by a singular noun or by 'one'.

Example

There are four rooms on 14th floor, **each** with the mountain view.

Each weekend, the hotel holds a dinner party.

Each table has a beautiful display of flowers.

The glasses are filled with water, **each** one at the same level.

Each person is given jobs to do at the party.

Is the sentence right or wrong? Choose O or X.

1. Each player has three darts to throw. (O / X)

2. Each of the side of equilateral triangle is the same length. (O / X)

3. There are four houses in this area. Each of the one has a balcony. (O / X)

4. He was wearing many rings. More than one on each finger. (O / X)

5. There were four sandwiches on the table. Each ones were a different flavor. (O / X)

6. Table tennis needs two or four players to play. Each player has a racket. (O / X)

7. The novel is divided into three parts and each of these has two themes. (O / X)

8. I give each of my parents a present every parent's day. (O / X)

Make sentence with these words.

1. answer / your / on / write / question / a / sheet of paper / to each / separate

→ _____

2. have / on / sharp / lions / paw / claws / each / every / or

→ _____

3. a / queen / gave / the / each / soldier / medal

→ _____

4. bottom / is / each / Monet's painting / signed / one / at / the bottom / of

→ _____

5. negotiated / a / work contract / with / different / they / us / of / each

→ _____

6. individually / you / fill in / have to / page / on / each / details

→ _____

7. each / the committee / once / allowed / was / member / of / to / speak

→ _____

Exercise Choose three sentences from the answer and say them in 3 seconds to your teacher without your book.

Unit 01 How Sound Is Generated

UNIT 01

Where does sound come from? When there is a vibration, energy is produced and then there is sound. When an object moves quickly back and forth, a vibration occurs. The bigger the vibration, the more energy of sound is created. When the tree falls, ★*it* moves the surrounding air and makes it vibrate. Sound moves outward in all directions from the falling tree.

Away from the trees, sound moves in waves. They are called 'sound waves' which can easily move through water, solids, and air. This also means that the vibration of objects causes vibration in the surroundings as well. When the tree falls, it sends out sound waves in all directions through the air and on the ground in which it falls.

Another example of sound movement is seen in the bee's wings. The air around the wings would vibrate, causing buzzing sounds. The sound waves created by the wings move away from the bee in **each place**. No matter where you stand in relation to the bee, you can hear the buzzing sound.

For **each different type** of matter, sound travels differently. The difference is mainly caused by the distance between **each particle**. In gases, the particles are farther apart than they are in liquids. In liquids, the particles are farther apart than they are in solids. **Each particle** in close distance transfers sound

energy more easily to one another. Sound transfers quickly through solids because the particles that make up most solids are close with one another. The transfer of sound is slower in liquids and air because the particles are farther apart. Overall, the speed of the sound varies, especially in gases. Sound travels more quickly in colder air than in warm air because **each particle** is closer together.

There are various types of sound. What kind of sound it produces is determined by the characteristic of a sound wave, which includes the loudness, intensity, and pitch. To begin with, the pitch is related to how high or low a sound is. Depending on the frequency, the pitch changes. Based on how fast an object vibrates, the frequency is determined. Frequency is measured in a unit called hertz. One hertz means one wave passes by a point each second, so one vibration occurs **each second**.

Now let's look at intensity. Intensity has to do with how loud a sound is and how to do with the amount of energy a sound wave contains. Loud sounds have more energy than quiet sounds. Thunder has much energy and can be very loud. The buzzing sound of a mosquito has little energy and isn't loud. The intensity gets less and less as you get farther away from the object making the sound.

Vocabulary

▪ **vibration[n]**	continuous quick, slight shaking movement Please set your cellphones on **vibration** mode.
▪ **occur[v]**	to happen Many accidents **occur** in the city.
▪ **distance[n]**	the amount of space between two spaces The subway station is a short **distance** away.
▪ **transfer[v]**	to move something from one place to another Date is easily **transferred** electronically.
▪ **determine[v]**	to be the cause of or reason The weather **determined** the success of the event.
▪ **intensity[n]**	the quality of being felt strongly or having a very strong effect The **intensity** of the earthquake is getting stronger.
▪ **relate[v]**	to be connected with something, or to show that something is connected with something else The part I'm saying now **relates** to what I have said before.
▪ **frequency[n]**	the number of times that something happens during a particular period He is invest igating the **frequency** of the crime.
▪ **measure[v]**	to find out the size or amount of something This machine **measures** their heart rate.
▪ **particle[n]**	an extremely small piece of matter Scientists verified the existence of the **particle**.

Reading Comprehension

[1~3] Choose the right word for the blank below.

Sound waves can 1. _____ move through water, solids, and air. Bee's wings are 2. _____ example of sound movement. There are various types of sounds in the world. 3. _____ , the passage finishes off by talking about intensity, which has to do with how loud a sound is.

1.
a. hard
b. easily
c. difficultly
d. doubted

2.
a. no
b. another
c. fewer
d. less

3.
a. In the end
b. The day after tomorrow
c. So
d. Happily

4. What is the passage mainly about?
a. Source of sound
b. Relationship between sound and intensity
c. Variety of sound frequency
d. Meanings behind the sound bees make

[5~7] Write T if statements are true or F if statements are false according to the passage.

5. Energy is produced when there is vibration. _____

6. Away from the trees, sound moves in waves. _____

7. Vibration doesn't occur when an object moves quickly back and forth. _____

8. The word produced in the passage is CLOSEST in meaning to
a. denied
b. generated
c. demolished
d. opposed

9. The word farther in the passage is CLOSEST in meaning to
a. more distant
b. closer
c. nearer
d. next to

10. Which of the statements is NOT true?
a. Sound travels differently in different type of matter.
b. Sound travels more quickly in warmer air.
c. There are various types of sound.
d. Hertz is a measure of vibration frequency.

11. Which of the statements is true?

a. Sound transfers quickly through solids.
b. People hear sound through their all senses.
c. Every sound travels in the same directions.
d. Buzzing sounds created by the bees cannot be heard.

12. What does ★***it*** in paragraph 1 refer to?

a. vibration
b. energy
c. tree
d. air

13. What can be inferred from the passage?

a. Sound wave cannot travel through air.
b. Sound's status does not change despite the kind of matter.
c. Sound can be produced in various ways.
d. Matter's speed only influences the sound's pitch.

14. According to the passage, what does one hertz mean?

15. According to the passage, when does the intensity get less and less?

CHECK LIST ✓

Date: . .

Video Lecture

- [ ] Have you watched the video lecture at least 2 times before the class?
- [ ] Have you watched the video lecture after the class?

Vocabulary

- [ ] Did you study the vocabulary listed next to the reading passage?
- [ ] Did you review what you got wrong on this unit's test?

Grammar

- [ ] Have you understood the points of this unit's Grammar Exercise?
- [ ] Have you answered the questions on the Grammar Exercise?
- [ ] Please review what you got wrong. Did you understand why you got wrong?

Reading Comprehension

- [ ] Have you read the stories carefully?
- [ ] Have you answered all the questions on this unit's reading comprehension?
- [ ] Did you figure out all of the exact reasons (or supporting details) for each question's answers?
- [ ] Please review what you got wrong. Did you understand why you got wrong?

Teacher Signature	Parent Signature