Sound waves and music

Warm-up



Get in pairs and discuss the following questions.

- 1 What role does music play in your life?
- 2 How much time do you spend listening to music every day / week?
- 3 Which different styles of music do you know?
- 4 Which style of music do you prefer to listen to when you are in a bad/good mood?
- 5 Have you ever been to a concert? If yes, what was it like? If no, which star would you like to see on stage? Why?

Listening



My favourite music genre

Listen to these statements and fill in the missing words. Then get in pairs and compare your results.



Statement 1

I primarily listen to rock. I've noticed that it really gives me

for all genres of music, for example jazz, rap, hip hop, pop, classical, punk, grundge, metal, black metal, emo, pop-punk, alternative and so on and so forth ... One thing that I really love and appreciate about rock music is that I can always always are show I feel. I've always found a song that the source of the source o

Statement 2

Now, don't get me wrong, I listen to ______4. You'll find rock, pop, and hip hop happily coexisting on my MP3 player. But rock is like popular music's home base. Everyone, even those who aren't rock fans, know at least one rock song. Many of the great _______5 are rock based, such as Queen. And a majority of the other genres, no doubt, have their origins in some form of rock. Plus, it's flexible. So many subgenres of rock exist, as well as fusion genres to ______6. While, like I said before, I listen to many types of music, my early years were very much shaped by my parents' musical interests. David Bowie in particular is ______7 and he's a great example of a rock crossover artist.



In this unit you are going to

- talk about your attitude towards music (*Speaking A2*)
- talk about the problem of noise pollution (Speaking B1)
- negotiate with parents about being allowed to go to a concert (*Speaking A2/B1*)

Unit

- write an e-mail to the editor (*Writing B1*)
- read an article on the possible risk to hearing from listening to MP3s (*Reading B1*)
- listen to teenagers talking about their favourite music genre (Listening A2)
- listen to an interview with a health and safety co-ordinator (Listening B1)
- practise trouble-free grammar:
 Past perfect tense simple (Language in use B1)
 Conditional III (Language in use A2/B1)
- boost your vocabulary: Describing sound waves

Statement 3

While it may have some crazy artists, sometimes bordering on evil, metal is often the fastest and ⁸ of all the genres. This takes the most skill and creativity, and the only thing that matches metal is rock. It can go from your shredder bands to your metal / symphony bands, and if the band isn't screamo, then they ⁹. I don't see the appeal of pop, which tends to be focused on the singer, and I don't see the appeal in rap or hip hop which ¹⁰ a repetitive beat.

Statement 4

Hip hop to me, if performed by the right person, is very creative and can

¹¹ in a cooler way. Everybody is different, and some would oppose my opinion. In all honesty hip hop is ¹², but I still love other kinds of music like pop, jazz and country, especially because of the ¹³

do and the beats they use which they sample from other genres of music.

Statement 5

I'm 16. I'm heavily into music, all kinds, but classical works of great beauty and meaning are 14. After listening to everything, I've come to agree with the late Maestro Andres Segovia that "the only real music is beautiful music". Rap has been popular, but for me is not 15. It's just an art form that came out of ghetto culture and for me the singers are not really able to actually sing. Kanye West says it's the rock of the future, but I think rap is dying, simply because more teens are smarter and 16 real, great music these days.



Get the lyrics of your favourite song from the Internet and design a gap-fill activity for your classmates. Provide a translation of the most difficult words. Don't forget to bring the song for everybody to listen to.

Before you and your classmates listen to the song, give some information on

- the band/singer
- which genre it is
- why this is one of your favourite songs.



Unit 2

Writing

An e-mail to the editor



Have a look at the title of the newspaper article that you are going to read and guess what it is about. Take notes in the mind map.





Get in pairs and discuss your ideas.

Read the newspaper article and underline the most important information.

Music festival triggered numerous noise complaints

1 The third annual *West Beach Music & Arts Festival* over the weekend brought an unusually high number of noise complaints. "The 911 system was inundated with complaint calls", said Ser-5 geant Mike McGrew, who patrolled the festival at the weekend. According to Susan Jang-Bardick, a special events supervisor with the city of Santa Barbara *Parks and Recreation Department*, the festival is allowed to reach a volume of up to 10 95 decibels.

Until the full report is turned in, she said it would be difficult to know if festival organizers were following this noise restriction. Nevertheless, it was the first time they had got so many noise com-15 plaints even though the sound restrictions that had been negotiated with festival organizers this year were the same as in previous years.

Agreement or not, the city received a flood of noise complaints, as it did over the whole week-20 end, Jang-Bardick said. In fact, when noise complaints poured in on Friday, the festival's opening day, she said city officials requested the decibel level be dropped to 80. Unfortunately, a telephone message left for a spokesperson at *Twiin Produc*-



tions, the company that organizes and promotes 25 the festival, was not heard in time.

Along with noise, McGrew said he noticed an increase in illegal activity, like underage drinking and marijuana use. No official statistics for arrests were available yesterday, but McGrew 30 called the event the "marijuana fest of the century." The number of underage drinkers was also tremendously high, he added. McGrew also said that crowds, which were estimated at nearly 15,000 on Sunday, were much larger than in years 35 past.



You live next to the area where the *West Beach Music & Arts Festival* took place and want to comment on the newspaper article. State your personal opinion. Use the phrases from the LanguageBox.

In your e-mail say

- who you are and where you live
- why you felt/why you did not feel disturbed by the loud music and the crowds

whether you think the festival should be cancelled next year or not.

Write about 200 words.

LanguageBox

Dear Sir or Madam

Referring to the newspaper article *Music festival triggered numerous noise complaints* in ... on ... I would like to state my personal opinion.

My name is ... and I live within walking distance of the area where the festival has taken place in the last few years.

I felt/did not feel terribly disturbed by the loud music/by the crowd/by the litter/by the drunk teenagers because/as ...

I really appreciate the opportunity for teenagers in our area to attend this festival as it helps us to make new friends/to have a good time with people our age/to forget about the routine of everyday life.

As a matter of fact, I believe that ...

I am sure that many teenagers can see my point when I say that ...

Therefore, I am completely opposed to the idea of ...

Moreover, the organisers should bear in mind that stricter regulations should be made regarding ...

All in all, the festival should be cancelled/should take place again next year because ...

Kind regards

Please note: How to write an e-mail to the editor

- Start with: Dear Sir/Madam
- Pick a topic from the article that you want to comment on.
- Include your main points within the first few paragraphs.
- Present possible solutions to the problem.
- Sign your name and include your phone number and address if required.

Get in pairs and discuss the following questions.

- 1 Have you ever been to a music festival? If yes, which one? If not, why not?
- 2 What do teenagers like most about music festivals?
- 3 What are the most famous music festivals in your country?

Unit 2

Speaking

Going to a pop concert

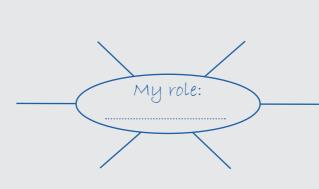
Mini-scenario

Get in groups of three. You want to go to a concert of a famous pop star in your area but unfortunately your parents do not want to let you go as they think you are too young.

- One of you is the 15-year-old teenager who wants to go to the concert.
- One of you is the mother who is strictly against it.
- One of you is the father who is willing to discuss the matter.

Before you start the discussion try to find good arguments to support your view. Collect your ideas in the mind map.







Now start your discussion. Use the phrases from the LanguageBox to express your view.

15-year-old teenager

I really want to go to the ... concert next weekend/on ... April/in July/... It would mean a lot to me because ... If I am not allowed to go there, ... I promise to ...

Parents

I can see your point but ... I do believe that ... In our view ... You have to understand that ... If you try to ...

LanguageBox

Language in use

After he had bought the CD, he enjoyed listening to it.

Trouble-free grammar: Past perfect tense simple (Grammar reference 4) p. 185)

The past perfect tense simple is used to refer to an action in the past that was completed before another action in the past.

After he had bought the CD, he enjoyed listening to it.

When the parents came home from the concert, the kids had already gone to bed.

The music teacher had marked the homework before Jack handed his book in.

After the song had been released, it became a number one hit in Great Britain.

Fill in the gaps. Use the past perfect tense simple.

Please note: Mind the word order.

I had *already* cleaned my room when my cousin **arrived**. Last week I **spoke** to the principal, I had *never* done that before.

_			
1	The storm destroyed the tents that we	2	(put up) in front of the stage.
2	He (not b	e) to the <i>Frequency Festival</i>	before 2015.
3	When she started playing the drums (study/already) for her Biology test.	yesterday afternoon, she	
4	My brother played in the orchestra th a member of when she was younger.	nat our mum	(be/also)
5	I remembered the lyrics that we		(learn) the week before.
6	Before they went to see the opera fest sightseeing tour through the city.	ival in Verona they	(be) on a
7	Tina	(never/sing) in a karaoke	e bar until she was eighteen.
8	When she play it for her.	(listen) to the CD, s	she took it round to Angie's to

2 Decide which past action happened first. Fill in the gaps. Use the past tense simple or the past perfect tense simple.

1	Cindy	(go) to town before I	(arrive).			
2	Jenny	(cannot) go out with me last weekend because she				
	(already/promise) Jerry to go out with him.					
3	After I	(speak) to my best friend a	bout the problem, I			
		(feel) much better.				
4	Kim's birthday party	(go) on for th	hree more hours after we			
		(leave).				

5 Ms Fuller (not recognise) me because she (only / see) me once. 6 Henry (be) very nervous before his date because he (never / go out) with Sally before. 7 Before he (can) apologise she (run) away. 8 When they (come) home from their holidays, they (notice) that somebody (break) the kitchen window.

Biography of The Beatles

3

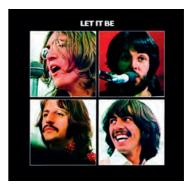
Fill in the active or passive form of the past tense simple or the past perfect tense simple.

Please note: How to form passive constructions of the past perfect tense simple:

had been + 3rd form of the verb

The music had been turned up louder *when* the guests **entered** the party room.

- 1 *The Beatles*
 (be) a British music group whose songs are among the most universally accepted music recordings of the 20th century. Before the *Beatles* (revolutionise) popular music all around the world, they
 (be) at the forefront of a movement in rock music
 - known as the *British Invasion*. The *British Invasion* 4 (be) a name 10 referring to the tremendous effect that British
 - rock 'n' roll bands ⁵ (have) in the United States during the 1960s. *The Beatles* ⁶ (adore) by the world in the 1960s and 1970s, and even today
 - 15 their music is loved by millions.
 - The group7 (form) in the1960s, and8 (break up)in 1970. It consisted of four Liverpool-bornmusicians, namely John Winston Lennon,
 - 20 James Paul McCartney, George Harrison, and Ringo Starr. After Pete Best
 9 (leave) the band, Ringo Starr
 10 (replace) him as drummer. *The Beatles*
 - 25 (create) a unique sound that fans continue to enjoy and bands continue to model them-



selves on, even today. One of their greatest						
albums ¹² (be) the creative						
Sgt. Pepper's Lonely Hearts Club Band.						
The British Broadcasting Corporation 30						
¹³ (ban) this song after it						
¹⁴ (release) for the first						
time because it supposedly had references to						
drugs. After 10 years of being together, The						
Beatles ¹⁵ (break up) in 35						
1970.						
When McCartney ¹⁶						
(realise) that each member was getting tired of						
the band and becoming busy with their own						
lives, he tried to bring the magic back and 40						
the other members ¹⁷						
(think) he was being too bossy. John						
Lennon, who was involved with Yoko Ono at						
the time, ¹⁸ (walk) into the						
studio one day and told everyone he wanted a 45						
"divorce", meaning he						
(want) out of the band. Finally, they all						
just ²⁰ (give up), and						
<i>The Beatles</i> ²¹ (separate).						
Although <i>The Beatles</i> are no longer a band, their 50						
music lives on. They have touched the world,						
and their music is immortal.						

Reading

Get in pairs. Have a look at the phrases in the VocabBooster taken from the text below and guess their meaning. Use a dictionary if necessary.

VocabBooster

to contribute to sth. • to be poised to make a problem much worse • to blast the volume • to desensitise the user • to pose an additional danger • noise-induced hearing loss • to place a large noise burden on so.'s hearing • to refuse to do sth. • to restore so.'s hearing • to harm so.'s hearing • to deny the danger of sth. • to sound muffled • to reveal mild hearing loss • to be resistant to warnings • to accelerate the aging of ears • to cause permanent damage to sth.



Read the article. Eleven sentence parts have been removed. Choose from the sentence parts (A-K) which one fits each gap best.

- A medical technology will find a way to restore their hearing
- **B** desensitize the user to dangerously high sound levels
- they continued to expose themselves to loud music even though they knew it was harming their hearing
- placing a large noise burden on his hearing even if he turns it down
- the ringing can get so loud that it interferes with sleep
- any type of headphone has the potential to cause noise-induced hearing loss
- G is a program designed to train children, parents, and teachers about the threat of noise-induced hearing loss
- are much more likely than adults to blast the volume in their MP3 players
- before people realize they're having serious difficulty hearing
- **U** can damage the delicate hair cells in the inner ear that transmit sound impulses to the brain
- K hearing loss will end only when young people themselves recognize the dangers

The earbud generation: At risk for hearing loss?

1 Experts discuss the possible risk to hearing from listening to music on smartphones or on MP3 players for long periods of time.

New surveys from the American Speech-Lan-5 guage-Hearing Association highlight that risk, noting that high school students ¹, raising the risk of hearing loss later on.

These devices, which pump music through headphones directly into the ear canal, enable

10 the user to overcome the rumble of the subway or the drone of an airplane engine without drawing angry shouts of "turn it down!"

As a result, they easily ². An external device does too, but earbuds connected to a smart-

phone or MP3 player pose an additional danger. 15 Because they hold thousands of songs and can play for hours without recharging, users tend to listen continuously for hours at a time.

Longer listening, more damage

Since damage to hearing caused by high vol- 20 ume is determined by its duration, continuous listening to music through earbuds, even at a seemingly reasonable level, ³.

The National Institutes of Health (NIH) did some research to find out about the potentially 25 devastating effects posed by earbud headphones. The result of this research was that 4 if used improperly in terms of absolute level of the



sounds, the length of exposure time to sound, 30 and the fit of the earphone or headphone. They add that more research is still needed to determine if a particular type of earphone increases the risk. Moreover, studies have shown that people exposed to 85 decibels for eight hours tend 35 to develop hearing loss.

Longer listening, more damage continued ... Every time you increase a sound level by three decibels, listening for half as long will produce the same amount of hearing loss. The kid who

- 40 cuts my grass uses an iPod. The lawn mower noise is about 80 to 85 decibels. If he likes listening to his iPod 20 decibels above that, he's in the range of 100–105 decibels. At that sound level he shouldn't listen for more than eight to
- 45 15 minutes. But if he's like millions of other iPod owners, the boy probably listens for several hours a day, 5 when he's not cutting grass.

Dealing with denial

The simple fact is that young people like their 50 music loud and seldom believe that hearing loss is a serious danger.

A recent study in *Pediatrics* reported that of the nearly 10,000 people who responded to a survey posted on the MTV web site, only 8% con-55 sidered hearing loss "a very big problem."

That was below sexually transmitted diseases (50%), alcohol and drug use (47%) and even acne (18%). While 61% said that they had experienced ringing in their ears or other hearing 60 problems after attending rock concerts, only

14% said they had used ear protection.

Even when they believe hearing loss is a danger, many young people still refuse to turn down the music.

65 Music dependency

"When I ask kids why they're not worried about hearing loss, they say they have faith that "6," says Deanna Meinke, chairwoman of the National Hearing Conservation Association's Task 70 Force on Children and Hearing.

Mary Florentine, an audiologist at Northeastern University, suspects that some young people actually have what she calls a loud music dependency disorder (LMDD). "I asked people why

75 7, and they said they couldn't stop listen-

ing," says Florentine. "They said, 'When I stop listening I get sad and depressed, and then I go back to it because I can't take it after a while. I start listening again at moderate levels, but it doesn't do anything for me, so I start to listen at 80 high levels."

Hearing loss goes unnoticed

Denying the danger of noise-induced hearing loss would not be so easy if loud music made the ears bleed, but the early symptoms tend to 85 come on gradually.

People may notice that voices sound muffled, and that they have a reduced ability to follow a conversation in a noisy environment such as a restaurant or a party. They might hear ringing in 90 their ears. In its worst form,

While a routine hearing test administered by a doctor can reveal mild hearing loss, the problem may become advanced ⁹.

Kids with old ears

95

An article in the journal *Pediatrics* estimated that 12.5% of children aged 6 to 19 – about 5.2 million – have noise-induced hearing loss. "Our own research shows that 16% of 6- to 19-yearolds have early signs of hearing loss at the range 100 most readily damaged by loud sounds," says William Martin, PhD, of the Oregon Health and Science University Tinnitus Clinic in Portland.

Because adolescents are so resistant to warn- 105 ings about loud music, Martin is trying to raise awareness among younger children. He is codirector of the Dangerous Decibels Project, which 10. It stresses the three most practical ways to deal with loud noise: turn it down, 110 walk away, or protect your ears.

But education merely raises awareness of the problem. As with the epidemic of obesity among the young, ¹¹ and change their behavior. "People have to use personal stereo systems 115 wisely or they will rapidly accelerate the aging of their ears," says Martin. "You can't toughen your ears by listening. Some people think you can. But if it's loud enough for long enough, you're going to cause permanent damage to 120 your hearing."



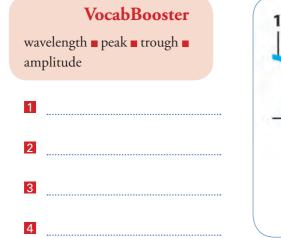
Get in pairs and discuss the following questions.

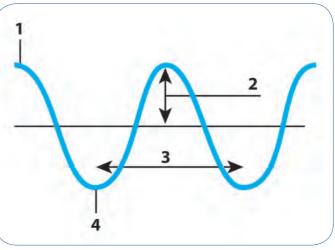
- 1 How many times a day do you listen to really loud music and for how long? Give reasons.
- 2 Are you aware of the fact that listening to loud music can seriously damage your hearing? Why do you mind? / Why do you not mind?
- 3 Can you describe situations in your life when it is especially important to you to listen to loud music? Explain.
- 4 Have you ever noticed any early symptoms of hearing loss yourself? If yes, which ones?

Listening

Being exposed to noise

Have a look at the diagram and label the numbers (1-4) correctly. Use the words from the VocabBooster.





2

Get in pairs and read through the following questions dealing with facts about sound. Five questions need to be answered with *yes*. Which are they? If your answer is *no*, provide the correct answer.

1	Do you think that vibrations cause sound waves that move through mediums such as air and water before finally reaching our ears?	Yes No
2	Do you think that our ears vibrate in a similar way to the original source of the vibration, allowing us to hear many different sounds?	Yes No
3	Do you think that dogs can hear sound at a lower frequency than humans?	Yes No
4	Do you think that sound is used by animals to detect danger, warning them of possible attacks before they actually happen?	Yes No
5	Do you think that sound can travel through a vacuum (an area empty of matter)?	Yes No
6	Do you think that the speed of sound is around 750 kilometres per hour?	Yes No
7	Do you think that when travelling through water, sound moves around two times faster than when it travels through air?	Yes No
8	Do you think that the scientific study of sound waves is also called acoustics?	Yes No
9	Do you think that although music can be hard to define, it is often described as a pleasing or meaningful arrangement of sounds?	Yes No