

The Power of Music

How Songs Change Our Brain

Why a simple melody can make you cry, remember your childhood, or run faster

■ B1 Reading ■ 30 min ■ Fun & Culture

Level	B1 (Intermediate)
Skill	Reading
Topic	Fun & Culture
Duration	30 minutes
Age Group	Teens & Adults

Learning Objectives

- ◆ Read and understand a text about how music affects the brain
- ◆ Learn 15 key vocabulary items related to science, emotions, and the arts
- ◆ Identify how music influences emotions, memory, and performance
- ◆ Discuss the role of music in daily life and education
- ◆ Write about a personal experience with music

1 Before You Read — Your Soundtrack

Think about music in your life and discuss:

1. What kind of music do you listen to most? How does it make you feel?
2. Is there a song that always brings back a specific memory? What is it?
3. Do you listen to music while studying or working? Does it help or distract you?

2 Reading: Your Brain on Music

Your Brain on Music

Press play on your favourite song and something extraordinary happens inside your head. Within milliseconds, sound waves enter your ears and travel to your brain, where they activate not just one area but dozens of **regions** simultaneously — areas responsible for movement, emotion, memory, language, and even your sense of reward. No other human activity lights up the brain quite like music does. It is, according to neuroscientists, a full-brain **workout**.

Music has been part of human culture for at least 40,000 years — bone flutes found in European caves are among the oldest known **artefacts**. Every known civilisation, without exception, has created music. But why? What is it about organised sound that holds such power over the human mind? Scientists are only now beginning to understand the answers, and their discoveries are remarkable.

Music and Emotion

The most obvious power of music is its ability to change how we feel. A slow, minor-key piece can fill us with sadness, while a fast, major-key song can make us want to dance. This happens because music directly affects the brain's **limbic system** — the area that processes emotions. When you hear a song you love, your brain releases **dopamine**, the same chemical that is released when you eat delicious food, fall in love, or receive a surprise gift. Music literally gives your brain a chemical **reward**.

What is even more fascinating is that music can make us feel emotions we have never experienced in real life. A teenager who has never known grief can feel profoundly sad while listening to a **melancholy** symphony. A person sitting alone in their room can feel the joy of a thousand people at a festival through a single song. Music creates **empathy** — it connects us to emotions and experiences beyond our own.

Music and Memory

Have you ever heard a song from your childhood and suddenly felt as though you were transported back in time? This is because music and memory are deeply connected in the brain. Songs are stored alongside the emotions and experiences we associate with them, creating powerful **triggers** that can unlock memories that seem completely forgotten.

This connection is so strong that music therapy is now used to help patients with Alzheimer's disease and dementia. Even when patients can no longer recognise their own family members, they can often remember and sing along to songs from their youth. The music does not cure the disease, but it can bring moments of **clarity**, comfort, and connection that nothing else can provide. Researchers believe this happens because musical memories are stored in deeper, more **resilient** parts of the brain that are among the last to be affected by the disease.

Music and Performance

Athletes have known for years what science has now confirmed: music makes you perform better. Studies show that listening to **upbeat** music during exercise increases endurance by up to 15 percent, reduces the perception of effort, and improves overall performance. The **rhythm** of music helps synchronise your movements, making running, cycling, and swimming feel more natural and less tiring.

Music also improves **cognitive** performance in certain situations. Background music at a moderate volume can boost creativity and help people think more flexibly. However, music with lyrics can actually hinder tasks that require reading or writing, because the language centres of the brain try to process both the lyrics and the text at the same time. This is why many people find instrumental music or ambient sounds better for studying.

Learning an Instrument Changes Your Brain

Perhaps the most powerful effect of music comes from playing it, not just listening. Learning a musical instrument physically changes the **structure** of the brain, strengthening connections between the left and right hemispheres and improving memory, attention, and problem-solving skills. Children who learn instruments perform better in mathematics and languages, and adults who play music regularly show slower age-related cognitive decline.

Music is not just entertainment — it is medicine, therapy, a workout for the brain, and one of the most powerful tools humans have ever created for connecting with each other and with ourselves. The next time you put on your headphones, remember: you are not just listening to a song. You are changing your brain.

3 Key Vocabulary

Word / Phrase	Definition	Example Sentence
regions	specific areas or parts of something, especially the brain	Music activates dozens of regions in the brain simultaneously.
workout	an exercise session; activity that strengthens something	Listening to music is like a full-brain workout.
artefacts	objects made by humans, especially of historical interest	Bone flutes are among the oldest musical artefacts ever found.
limbic system	the part of the brain that processes emotions	Music directly affects the limbic system, which controls feelings.
dopamine	a brain chemical linked to pleasure and reward	Hearing your favourite song releases dopamine in your brain.
reward	something positive received in return for an action	Music gives the brain a chemical reward similar to food or love.
melancholy	a deep feeling of sadness, often without a specific cause	A melancholy melody can make you feel sad even without words.
empathy	the ability to understand and share another person's feelings	Music creates empathy by connecting us to emotions beyond our own.
triggers	things that cause a particular reaction or response	Songs act as triggers that unlock forgotten memories.

Word / Phrase	Definition	Example Sentence
clarity	the quality of being clear and easy to understand	Music therapy can bring moments of clarity to dementia patients.
resilient	able to recover quickly; strong and not easily damaged	Musical memories are stored in resilient parts of the brain.
upbeat	cheerful, lively, and optimistic	Upbeat music can increase exercise endurance by up to 15%.
rhythm	a regular repeated pattern of sounds or movements	The rhythm of music helps synchronise body movements.
cognitive	relating to mental processes like thinking and learning	Music can improve cognitive performance and creativity.
structure	the way something is built or organised	Learning an instrument changes the physical structure of the brain.

4 Useful Collocations

listen to music · play an instrument · favourite song · music therapy · background music · live performance · musical talent · sense of rhythm · emotional response · brain activity · memory recall · sound waves · tempo and beat · classical music · music streaming · tone of voice

5 Reading Comprehension

1. What makes music unique compared to other activities?

a) It only uses one part of the brain
b) It activates dozens of brain regions simultaneously ✓
 c) It does not affect the brain at all
 d) It only affects the ears

2. What chemical does the brain release when you hear music you love?

a) Adrenaline
 b) Melatonin
c) Dopamine ✓
 d) Insulin

3. Why is music therapy effective for Alzheimer's patients?

- a) Because it cures the disease completely
- b) Because musical memories are stored in resilient brain areas ✓**
- c) Because patients prefer music to medicine
- d) Because doctors play music during surgery

4. By how much can upbeat music increase exercise endurance?

- a) Up to 5%
- b) Up to 10%
- c) Up to 15% ✓**
- d) Up to 25%

5. Why can music with lyrics be bad for studying?

- a) Because lyrics make people sleepy
- b) Because the brain tries to process both lyrics and text at once ✓**
- c) Because lyrics are always in a foreign language
- d) Because music with lyrics is always too loud

6. What happens to the brain when you learn a musical instrument?

- a) It gets smaller
- b) Its physical structure changes and connections strengthen ✓**
- c) It stops processing language
- d) Nothing measurable happens

6 Vocabulary Exercise — Fill in the Blanks

Complete the sentences with the correct word from the box:

dopamine · rhythm · cognitive · triggers · empathy · resilient · upbeat · structure

1. Hearing your favourite song releases _____ — the brain's pleasure chemical.
2. The _____ of music helps runners synchronise their steps and improve endurance.
3. Background music can boost _____ performance and help with creative thinking.
4. Songs from your childhood act as _____ that unlock forgotten memories.
5. Music creates _____ — it helps us feel emotions we have not experienced ourselves.
6. Musical memories are stored in _____ parts of the brain that resist disease.

7. Listening to _____ music during exercise can increase endurance by up to 15%.
8. Learning an instrument physically changes the _____ of the brain.

7 Answer Key

■ Vocabulary Exercise Answers

1. dopamine
2. rhythm
3. cognitive
4. triggers
5. empathy
6. resilient
7. upbeat
8. structure

8 Speaking & Writing Tasks

■ Speaking Task: Discussion

Discuss these questions with a partner or your teacher:

- What role does music play in your daily life? Could you live without it?
- Do you think learning a musical instrument should be compulsory in schools? Why?
- Have you ever been deeply moved by a piece of music? Describe the experience.
- Do you think AI-generated music can ever be as powerful as human-made music? Why?

■ Useful Phrases for Describing Experiences

- **Whenever I hear this song**, it reminds me of my childhood summers.
- **The reason I love this music is that** it always makes me feel energised.
- **What fascinates me about music is** its ability to change my mood instantly.
- **I cannot imagine** exercising without music — it keeps me motivated.
- **In my experience**, instrumental music helps me concentrate better than songs with lyrics.

 **Writing Task: A Song That Changed My Mood**

Write a paragraph (120–160 words) about this topic:

"Describe a time when music changed how you felt. What were you doing? What song was it? How did the music affect your mood or actions?"

Use vocabulary from this lesson. Describe the emotions you felt and explain why you think music has such power over our feelings.