



# Why Do My Kids Remember Song Lyrics But Not What They Studied?

Ever wondered why your kids are able to recall every single lyric to Frozen’s ‘Let It Go’ or the latest Taylor Swift hits? And you think to yourself – if only my kids could remember math formulas or science facts as well as this.

Studies have revealed that there is actually a science to this. To understand it better, let’s take a look into what’s inside our brain. Memory is made up of three ‘storage’ systems – encoding, long-term memory and recall.

### Encoding:

- First step in creating memory
- Takes information & holds it in short-term storage
- Depends on how much attention you’re paying to this new information

### Long-Term Memory: stores 2 types of memories

- Episodic memories: feelings associated with an event i.e. Your 12th birthday party

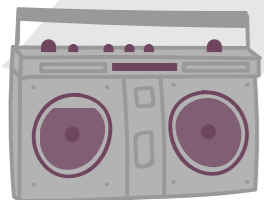
- Semantic memories: general facts or knowledge i.e. Who won World War II. This system is a big one for storing school-related learning

### Recall:

- Locates information stored in our brain and extracts it efficiently
- Allows answers to pop into your brain a second or two after reading it. i.e. What is 2+2?

The reason your kids have almost perfect recall of song lyrics over school-related facts & formulas, is simply because they are paying more attention to the songs than classroom lessons. The more attention they pay, the better their brains encode the information.

Also with all things in life, practice and repetition helps strengthen that memory. Your kids probably listen to their favourite songs on repeat, rather than lessons at school, making it easier to recall song lyrics over key facts and formulas.



## CAN I JUST REPLACE THE SONG LYRICS WITH ACADEMIC FACTS?



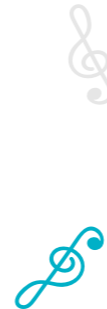
Our brains have something called ‘cement’ memory, which makes it difficult to get rid of strong old memory connections to make way for new ones. Learning becomes more difficult as we grow older, not because we have trouble absorbing new information, but because we fail to forget old stuff.

The *New York Times* reported a study that was done on mice which focuses on two proteins important for forming connections in the brain– NR2A and NR2B. The results showed that the brain produces higher levels of NR2B than NR2A before puberty, but in adulthood, that ratio reverses. What this study means is that it can be harder to learn new materials and information simply because the catchy song lyrics were there first.

### The Science Behind Boosting Memory with Music

Scientists have determined that the brain’s neuroplasticity (ability to adopt and change) increases with exposure to musical sounds and melodies. An active engagement with music sounds not only enhances neuroplasticity, but also enables the nervous system to develop a stable foundation of meaningful patterns that are essential to learning.

Studies have also shown that our brains operate by rhythms. By listening to rhythms in certain songs, your thoughts would follow the organized musical patterns and rhythms, allow you to absorb information in a clear and calculated manner that makes for easier recall.



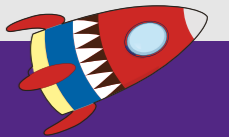
## Revolutionary Method Of Teaching Science Through The Power of Music

With this knowledge of how music affect memory, a catchy tune might just be the secret to unlocking your child’s potential to learning school-related facts. And one such company has actually tapped into using music as a highly effective teaching tool for kids.

At *The Music Scientist*, they are dedicated to introducing your children to the world of science through music. Their aim is to revolutionise early childhood experience and champion an even closer integration of music and science to create a fruitful learning experience for their students.

The *integration of music and science* breaks the traditional confining boundaries of left brain and right brain subjects, thereby elevating the learning experience to a holistic one. Utilising the element of music to ignite fun and love for learning, it paves the way for your child to develop a passion for lifetime exploration and staying curious.

## HOW DOES IT WORK?



*The Music Scientist* adopts a **whole brain learning approach** to holistically stimulate both hemispheres of the brain.

In Singapore, science education only begins in primary three, and traditional classroom techniques forces students to memorise facts and scientific terms for high stakes streaming examinations. Not only does this strictly limit development to either the left

brain (analytical) or right brain (intuitive), the subject of science becomes void of all curiosity and discovery and becomes a struggle for many students in primary school.

The trick is to introduce your child to the wonders of science at a young age, and have it stem from their natural curiosity and inquisition. When your child discovers the various fascinating topics of science and begins to question 'how does it work?', that is when their brains will be properly stimulated to seek the answers and learn the facts.

Coupling their progressive approach with musical elements, *The Music Scientist* creates illustrations and analogies to explain science, and encourages the power of observation and play, along with hands-on science experiments to spark problem-solving and exploration.



The Music Scientist turns science facts into original songs that are tailored to engage with their catchy melodies and lyrical science facts. Check out some of their featured originals here:

**Solar System:** <https://youtu.be/4Aj1B04mwc0>

Remembering the names of the planets of the solar system has never been easier!

**Move and groove:** [https://youtu.be/HaZ\\_LcGsg7s](https://youtu.be/HaZ_LcGsg7s)

Learn the human anatomy with this fun and catchy song, accompanied with dance and movement to explain the functions of our bones.

**WHAT CAN MY KID LEARN?**



The Music Scientist covers topics from human biology to basic physics and even more complex topics such as the environment and outer space. With topics like human biology, children can first begin with something they are familiar with. Their programmes are based on the MOE science syllabus for Lower Primary School.

Some popular lessons available are:

- 🎵 Animal Kingdom
- 🎵 Solar System
- 🎵 Ocean World
- 🎵 Human Anatomy

“The Music Scientist has a wonderful way of teaching. Through music, dance and activities, our son had so much fun learning about the human anatomy. He also managed to retain the science concepts better. We are eagerly looking forward to what The Music Scientist has to offer next!”

- Ms. Joann Keong, parent of K2 student



**MUSIC OR SCIENCE? WHY NOT BOTH?**



**JOIN OUR MUSIC & SCIENCE CLASSES NOW!  
(2 MONTHS TO 8 YEARS OLD)**

**OUR CURRICULUM**

MUSIC	SCIENCE
In line with Orff, Kodaly & ABRSM	In line with MOE Primary Science

**At The Music Scientist, your Child will:**

- ✓ Build Music & Science Vocabulary & Concepts
- ✓ Enhance Physical, Social, Emotional, Cognitive & Linguistic Development
- ✓ Nurture Love for Music & Science
- ✓ Improve Focus & Memory