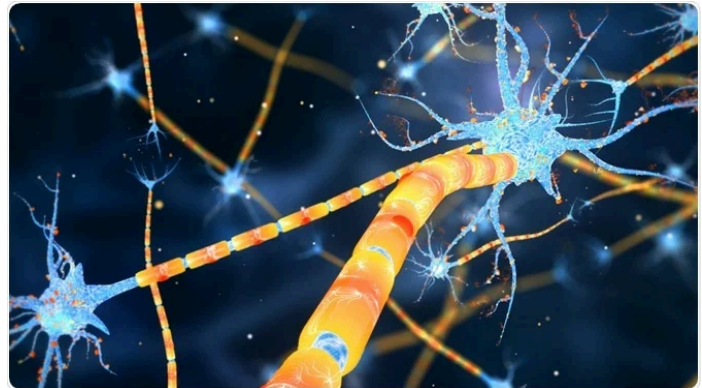


The Science of Learning: Why School Attendance Matters

As parents, we want our children to succeed academically and develop the skills they need for the future. However, frequent absences from school—whether due to illness, travel, or other reasons—can significantly impact a child’s ability to learn and grow. Understanding the science behind skill development and the brain’s wiring can help us appreciate the importance of consistent learning opportunities, both in and out of the classroom.

The Role of Myelin in Learning

In his book *The Talent Code*, Daniel Coyle explains how skill development is deeply connected to the formation of myelin, a fatty substance that wraps around neural pathways in the brain. The more we practice a skill, the more myelin builds up, making those neural connections faster and stronger. Coyle states, “*Skill is myelin insulation that wraps neural circuits and grows according to certain signals.*” This



means that when children consistently engage in learning—whether it's math, reading, or playing an instrument—their brains physically change to make those skills more efficient.

However, when students miss school frequently, they miss valuable practice time, disrupting the myelin-building process. Just like an athlete or musician needs consistent training to improve, students need daily academic engagement to reinforce their learning.

The 10,000 Hour Rule and Academic Growth

Malcolm Gladwell popularized the idea that it takes roughly 10,000 hours of practice to master a skill. While this number isn't a strict requirement, it emphasizes that deep, deliberate practice is essential for growth. Each day in school contributes to a child's accumulation of knowledge and skill mastery. Repeated absences create gaps that can slow progress, making it harder for students to keep up with their peers.

Preventing Learning Loss Over Breaks

While school attendance is crucial, learning doesn't have to stop during breaks. Parents can help keep their children's brains active during spring and summer vacations by:

- **Encouraging daily reading** – Even 20–30 minutes a day helps maintain literacy skills.
- **Exploring hands-on learning** – Science experiments, museum visits, or cooking together can reinforce problem-solving and critical thinking.
- **Practicing math in everyday life** – Grocery shopping, budgeting, or measuring for a home project can keep math skills sharp.
- **Supporting new skill development** – Whether it’s learning a new sport, playing an instrument, or practicing a foreign language, consistent practice builds myelin and reinforces learning.
- **Using educational apps and games** – Many online resources offer fun ways to reinforce what kids have learned in school.



The Takeaway

Coyle reminds us that “*Struggle is not an option: it’s a biological requirement*” for growth. Learning isn’t about occasional bursts of effort—**it’s about steady, deliberate practice**. By prioritizing school attendance and providing enriching learning experiences at home, parents can help their children build strong neural connections that support lifelong success.