

How Boys and Girls Learn Differently

Turns out, years of research proves that boys' and girls' brains *really* are different, which means they don't always learn in the same way or at the same developmental levels.

Parents of two boys learned to appreciate how different boys and girls can be—but only after the birth of their third child, a girl.

“At the age of two, my daughter could sit with her coloring books and crayons and amuse herself for literally an hour,” says the mother. “When she started preschool she was a model student,” adds the father. “She’d sit at her desk and color or make projects, would write her name neatly, and quietly listen during story time—all of this was so vastly different from our boys who wanted to always be on the go and tended to be more focused if they were physically engaged.”

While not every boy and girl will fall neatly into one of two learning-style categories, science does paint a pretty clear picture of how, as a whole, gender does play an important role in determining how we learn.

Understanding the science of how boys' and girls' brains differ in general can help parents maximize their children's learning experiences and potential. While every child will have his or her own learning strengths and styles, here are a few things parents can consider as they are supporting their children's education and helping them succeed. (Keep in mind, these are general tendencies, and may not apply directly to any given individual.)

Hearing differences

Research shows that girls have a more finely tuned aural structure, which allows them to hear higher frequencies and softer sounds compared to boys. Therefore, if boys sit in the back of a classroom, they may not be able to hear a soft-spoken teacher or other students in the front of the room.

Girls also tend to be more sensitive to sounds. Experts say that oftentimes girls can misinterpret a teacher's loud vocal tone or booming voice as yelling. “My 9-year-old daughter used to say that her teacher was always yelling,” says one mother. “However, at parent night we learned that he just has a loud voice.”

Visual differences

Boys and girls literally see differently because their eyes are not organized in the same way. The structure of the male eye makes it more attuned to motion and direction, which is why boys tend to have better spatial visualization and memory – skills that are useful when reading maps, constructing elaborate three-dimensional projects, recording information about the position of objects in the environment. As one researcher put it, “Boys tend to interpret the world as objects moving through space.”

The male eye is also drawn to cooler colors (silver, blue, black, grey, and brown), which helps explain why boys tend to create artwork and pictures of moving objects such as spaceships, cars, and robots in

dark colors. The female eye, on the other hand, is drawn to textures and warmer colors (reds, yellows, oranges, and pinks) and visuals with details, such as faces. This is likely why girls tend to use lots of color in artwork and in visual presentations in the higher grades. Additionally, research shows classroom lessons involving colors—i.e., colored markers on whiteboards, colored chalk, colored type on Smartboards and computer screens—tend to hold girls’ attention at a higher rate. When parents help their daughters practice their spelling words or hone their math skills, they should consider using colored flashcards or colored type on index cards to further grab their attention.

Language development differences

The language centers of girls’ brains actually develop earlier than boys. Consider this: Research shows that from early on, infant girls pay closer attention to the words their parents and caregivers say compared to infant boys. As a result, the verbal centers in the female brain develop more quickly than in the male brain, which is why reading, writing, and comprehension skills tend to come earlier and are more often easier for girls to master. While these skills for both sexes tend to level out in middle school, those who struggle with language skills in elementary school could benefit from extra practice so that other subject areas don’t suffer.

Fine- and gross-motor skill differences

Gross-motor skills are those that build kids’ large muscle groups and come from the physical activities kids do naturally—running, jumping, and climbing. The stretching and strengthening of muscles in early childhood lead to other refined or fine-motor skills, such as grasping, pinching, and squeezing, all of which are needed to hold a crayon or pencil, use a computer mouse, or cut with scissors. Children need both gross- and fine-motor abilities to hold themselves upright, make eye contact, and sit for lengths of time when learning such skills as reading and writing once they are in school.

Research shows that young boys tend to develop their gross-motor skills earlier than girls. This is partly because boys tend to be more active and are more productive learners when they are manipulating and moving objects around. Girls, however, define their fine-motor skills faster than boys, and this is partly due to the fact that girls are more comfortable learning by sitting down and working with smaller objects (beads, coins, blocks, etc.) One researcher explains that more boys than girls “simply struggle with the task of holding a pencil and cutting out objects with scissors.”

Boys’ fine-motor skills do eventually catch up with their female peers, but until that happens, it can be difficult for boys to write neatly or stay in the lines when coloring and cutting.

“This doesn’t mean boys are “sloppy” or don’t care about their work,” explains a kindergarten teacher. “It just means that some boys need to do more activities that involve fine-motor skills.”

To help sharpen your child’s fine-motor skills, set aside 10 to 15 minutes each day where your child practices writing letters and words, drawing shapes and cutting them out, circling objects on a page, and painting or coloring large, simple pictures (i.e., a rectangular car with two circular wheels, a square house with a triangle roof, etc.). Check out *Highlights* children’s magazines or other similar publications that have many activities, stories, games, etc. to help children fine-tune a variety of their early-learning skills.