

# Parent Pages



RESOURCES FOR CHRISTIAN PARENTS IN THE 21ST CENTURY

# **UPON THIS ROCK: Vision and Learning**

It's easy to take vision for granted. When God created us, He blessed us with senses that help us to communicate, learn and process our world. For most of us, being able to see has been a constant part of our lives. We don't think about vision until it does not work. Research tells us that 1 in 4 children have undetected vision problems. This happens because vision changes can be so gradual that a child does not notice and because young children do not know what they are supposed to be able to see. Children may not know to tell a parent that a problem exists.

An eye screening that typically takes place in the pediatrician's office checks for visual acuity, which is the ability to see clearly at both near and far distances. These exams are only for screening purposes; while they work fairly well, they may miss other vision needs. It is therefore recommended that young students receive thorough eye exams on a regular basis.

Of course, we realize that learners need to be able to see the difference between "B" and "3" or "S" and "5," but vision is important to learning in other ways. Learners also need the following visual skills:

- Eye-hand coordination that allows a student to accurately write, type and respond to movement in their environment;
- Visual focus that allows for acuity when a student moves from reading the whiteboard to focusing on close work, such as a book or computer screen;
- Eye teaming that allows both eyes to work together to judge distance; and
- Visual memory, which is creating a mental picture of a scene and holding it in both short- and long-term memory.

These skills go beyond the ability to see clearly. They also involve the way the brain processes and uses information from our sense of sight. The brain is what allows us to register what has been seen and to use it. If the brain's processing skills are not working, a person can be effectively blind, which is true of people with a condition known as blindsight. Such people "see" nothing even though their eyes work fine. Their blindness is in the brain, not in the eyes.

Visual-processing skills can be impaired or delayed in several different ways. A child who loses his place while reading, rubs his eyes frequently or complains of headaches





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after doing homework might have a more complicated visual issue than seeing clearly. Likewise, head tilting or closing one eye in order to focus are symptoms that should not be ignored. Because the brain processing aspect of vision is so complex, symptoms such as letter reversal, omitting letters or words while reading, trouble identifying an object in a complicated background, and the inability to create a mental image of a scene from a story are also possible indicators of a visual-processing problem. In this way, a vision issue can impact learning by inhibiting not only decoding, but reading comprehension as well. Furthermore, when comprehension is impacted, learning problems are seen in other subjects.

There are numerous reasons why children experience challenges in school. Many children struggle with reading comprehension for reasons other than vision impairment. However, vision impairment is a relatively easy thing to check for and should be ruled out in the process of diagnosing a learning disorder. If a child does have a visual-processing impairment, this information will influence treatment for learning problems.

If you frequently see the following behaviors in your child, it might be a good idea to make an eye appointment and mention these issues to the optometrist:

- Distracted by visual information;
- Difficulty copying information and following lines or margins;

- · Reversing, omitting or misreading letters, numbers or words;
- Frequently bumping into things;
- Difficulty remembering spelling word patterns;
- Poor reading comprehension;
- Poor handwriting skills;
- Frequently confused by function signs, steps and formulas in math; and/or
- Routinely does not notice visual changes at school or home.

Many of these are characteristic of children with learning disabilities. Visual-processing difficulties might be part of the puzzle when diagnosing learning issues. Some problems might be developmental and could improve over time, but often children with visualprocessing challenges need to learn to compensate. This can make a big overall improvement in learning.

Several Bible stories tell of Jesus restoring vision to the blind. It is God's will that we both see and understand. God has blessed medical and learning professionals with new information regarding how our visual-processing abilities impact learning.

#### For Further Study

The American Optometric Association is happy to answer your questions about eyes. Learn more at *aoa.org/?sso=y*.

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