



# PERFORMANCE

## *Vision Therapy*

**Dr. Jana Crim**

**Developmental Optometrist**

**3252 Aspen Grove Drive, Suite 1**

**Franklin, TN**

**615-771-7555 phone    615-771-7773 fax**

# What are some of the visual skills that affect learning?

Most people don't realize that you need over 15 visual skills to succeed in reading, learning, and in life. Seeing '20/20' is just one of those visual skills. Other visual skills include:

## Convergence

When reading, the eyes should aim inward at the same spot in order to fixate on print. If the eyes aim at a spot in front of or behind the print, extra energy and effort is required to maintain fixation and double or overlapping vision may occur. An example is shown below:

Sam ran to help Kate.

## Directionality

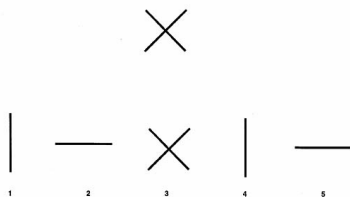
Directionality is important in understanding how similar shapes can have different meanings when they are in different orientations. Below is an example of some letters that are commonly reversed by children with poor directionality. The letters are the exact same shape, but are called a different name depending on their orientation. Examples:

b d p q

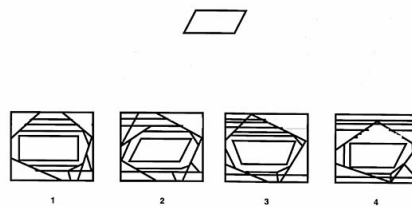
## Form Perception/Processing

Below is an example of an item from a visual perceptual skills test. In this particular test the child is asked to identify which form among the choices at the bottom matches the form on top. Other visual perceptual tests assess the child's ability to identify a form from memory, identify which form is oriented in a different direction, identify a form that has a different size or orientation, identify a sequence of forms from memory, identify a figure hidden in ground and identify an incomplete form as if it were complete.

An example of an item from the the Visual Discrimination subtest of the Test of Visual Perceptual Skills - Revised (Gardner, 1996)



An example of an item from the the Visual Figure-Ground subtest of the Test of Visual Perceptual Skills - Revised (Gardner, 1996)



### **Tracking (Pursuits and Saccades)**

Commonly referred to as 'tracking', maintaining fixation on a moving target (pursuits) or accurately switching fixation between two targets (saccades) are two types of eye movements that are essential for reading and learning. An example of this is when your eyes reach the end of a line of print and have to accurately move from the end of that line to the beginning of the next line of print. Difficulty with these eye movements can cause a child to skip words or lose their place when reading.

### **Accommodation (Eye-focusing)**

Accommodation refers to the demand on the visual system to bring objects into focus at near distances, or near point stress. Children can have difficulty with these demands with sustained near work for long periods of time, but also with focusing back and forth from near to far. For example, copying from a chalkboard or SMART board to one's paper can be very difficult if a child's accommodative ability is not adequate.

### **Visual Motor Integration**

Visual motor integration is the ability to take information that is seen and then print it appropriately on paper using fine motor skills. This may also be referred to as eye-hand coordination and is very important when copying words or letters from the board.

### **Visualization**

Visualization is the ability to create mental images. Children who have vision problems may also have difficulty with visualization. This skill is important for success in many school subjects including spelling, math, and reading comprehension.

**The five most common signs that a vision problem may be interfering with a child's ability to read and learn are:**

- 1. Skips lines, rereads lines**
- 2. Poor reading comprehension**
- 3. Takes much longer doing homework than it should take**
- 4. Reverses letters when reading**
- 5. Has a short attention span with reading and schoolwork**

**If you have noticed any one of these symptoms, please call our office to schedule a Vision Therapy Assessment so we can begin to uncover visual problems that may be affecting your ability to read, learn, and succeed.**