

## General Notes About the Checklist

### Appearance of the Eyes

Most of the conditions noted will immediately catch your attention. However, none of these conditions should ever be allowed to continue. The basic physical condition of the eyes must be normal, and the eyes healthy, if your child is to develop the visual skills necessary for achievement in the classroom.

**One special note:** Parents frequently become alarmed when they see one of their child's eyes appearing to turn in toward the child's nose. This most often happens when the child is very young, and the bridge of the nose is still very flat and broad. Look carefully at pictures of your child, and if the reflections of the camera flash bulb are centered in the pupil (the black, round center of each eye), there is probably little cause for concern. However, if this reflection is not in the center of each eye, professional attention should be sought immediately because children seldom outgrow vision problems without professional assistance. Do not hesitate to get several opinions before anything as radical as eye muscle surgery is recommended for your child at these early ages. There are several proven clinical procedures to alleviate most of these problems, and surgery should always be the last resort.

### Evidence of Discomfort

This is not always easy to observe in very young babies, but the items listed will assist you if a child is experiencing discomforts he cannot tell you about. The most obvious of these will be the baby's reluctance to keep eyes open in wakeful moments. Your baby may not be able to talk and tell you about his discomfort, but he learns very early how to keep his eyes closed to soothe any discomfort he might be having.

### Expected Vision Development

All of the items listed in the checklist are observations of visual behavior which have been carefully and extensively determined by a large number of authorities. Again, the ages listed for each of these have to be approximate because every child is an individual, and will always develop at his own rate of experience and development. If any one of these developmental activities is omitted, or practiced too briefly, it is important to watch all other developmental signs to be certain your baby is gaining all the skills he needs. Delay in vision development can interfere with total development because of the close interrelationships between all sensory systems.

### Attention Span

The items listed for the first six weeks provide clues to the early development of visual abilities. The most important single, and common, clue is the development of visual attention and your baby's awareness of his eyes as useful information gatherers. The early example is a baby's visual recognition of his parents. This is the beginning of the visual attention span skills he will need later when he must stay on the visual tasks of the classroom.

### Visual Scanning

Next in importance is the ability to move eyes quickly and accurately (visual scanning) without too much head movement. This skill is directly related to the reading task. The child who does not learn to scan efficiently will have difficulty with all the book and worksheet tasks which will be thrust upon him in the classroom. There is growing evidence from many investigators that a deficiency in this ability can keep even the most intelligent child from gaining the reading skills he must have for progress in our culture.

### Orientation and Localization

As your baby learns to hold his eyes on an object, ie, a face or a toy, long enough to inspect it fully, he must also learn to scan to find special things that he wants to inspect. Now it becomes very important that he learn a visual awareness of his surroundings. This is the beginning of his orientation skills and his knowing where people and objects are in the world about him. This is also how he learns where he is so he can begin to judge distances and directions for his movements and how he gains the broadest background of visual information which he must bring to the classroom. The developmental/behavioral optometrist will refer to these as saccadic eye movements and will urge you to make careful observations of your child's abilities to make quick and efficient judgments of the locations of persons or objects around him.

### Visual-Manual Integration

Very early, your baby finds that he has hands--hands which will become a very important part of all visual activities. First he finds his hands, and then he finds things his hands will hold so he can visually inspect and explore these things. This early visual-manual integration is the foundation for everything he will do in his lifetime. Eventually, his hands will efficiently perform so many of the orders from his brain.

This one phase of development is perhaps the most important as visual-manual integration will determine more of what he learns in school than any other combination of abilities and skills. This developmental area is the one where parents can provide the most valuable help in assuring that their child is visually ready for the classroom. And, what is done for your child in the years between three and five can be the basis for a lifetime of successes.

As your baby matures, and reaches the ages of four and five, there must be an increase in all visual abilities and in the visual skills to inspect visually, discriminate, and appreciate all the details which even the hands cannot explore and feel. At this age, your child must discover how his vision will serve him in the full exploration of the world around him. Most of the world cannot be reached for and touched as it was during the first two or three years of his life. Now, vision must do the "reaching" and the "touching" of things far away to gain information about texture, size, shape, weight and temperature. This is also the time when your child must learn to scan visually all distances quickly and accurately--far, near, and in-between, here, there, and everywhere, up, down, right and left, all the places where there is something to see. Vision now becomes a dominant guide and monitor for all performance and the accuracy of his performance is based on the speed and accuracy of his visual abilities. The guidance and the practice you give your child in developing his visual abilities during his first five years is important.

## Important Observations Parents Can Make

There are observations of visual abilities that you should learn to make approximately every six months starting when your child is about two-and-a-half until he enters school. These will give you reliable clues to the progress your child should be making in gaining all the visual abilities so essential to his school success. These are:

### A. Eye Movement Abilities

1. Hold a small, bright, interesting toy 8 to 10 inches directly in front of your child's face. Say: "Watch the (toy); watch it just with your eyes." Move the target across, back and forth in front of the child's face at a moderate speed. Move it across a distance of about 12 inches, and continue moving it six to eight times each direction. Watch his eyes to see if they are maintaining alignment with the target where you know it to be as you move it. If so, encourage your child by saying: "Good for you; keep watching the (toy); watch just with your eyes."

If not, DO NOT SAY: "Do not move your head," or "Hold your head still." This procedure is to determine if your child has gained full, free eye movements without excessive head movements.

2. Using the same toy as a target, move it up and down directly in front of your child's face, in line with his nose. Give the same instructions and observe for eye movements without excessive head movements.

3. Again using the same toy for a near target, choose a familiar object across the room (in front of your child) for a distance target. Now say: "Look at the (toy); now look quickly at the (clock); now at the (toy); now at the (clock)." Repeat this near-far-far-near visual locating activity enough times to note the speed and accuracy of the eye movements and "target landings." Eyes should move in a free and quick manner from target to target, and without head movements.

### B. Blending of "Fields of View"

Each eye has its own field of view. These visual fields must be combined or synchronized for optimum performance on classroom tasks. Any problem here can interfere with classroom tasks (assignments).

Hold a playing or postal card so it covers one of your child's eyes. Now hold the same small toy about 6 inches directly in front of your child's nose. Say: "Keep looking at the (toy) all the time." When you are sure the child is looking intently at the target with his uncovered eye, quickly remove the card. Carefully watch for movement of the just uncovered eye as your child strives to continue looking at the target. You may wish to do this a couple of times to make careful observations. Repeat this procedure by covering the other eye, and, with the same instructions, make the same observations when the cover is removed.

Slight, quick adjustments of the eye you have just uncovered as your child synchronizes his fields of view, are not unusual, especially up to the age of three. By ages four and four-and-a-half, there should be no or only slight adjustment to achieve this synchrony at the instant the cover is removed. If there is any observable difficulty reaching this synchrony, there is definite need for the proper clinical help to assist your child in achieving the visual skills essential to all classroom tasks. A failure to learn this synchrony can result in severe blurring, or even doubling, of the words on a textbook page. Such confusion can cause the academic failure of a "smart" child.

Most children will pass a casual test of "seeing" ability. However, many children may not have learned the visual skills they need to learn. If these are not achieved by the time books, pencils and worksheets are thrust upon a child, he can be working under extreme stress and fatigue in all desk tasks. The above are the observations parents should make as often as necessary to be confident a child's visual abilities are developing properly.

### C. Speed and Accuracy of Visual Discriminations

Very few children of preschool age have any difficulty seeing details clearly at distance. However, this skill must not be taken for granted just because many children demonstrate that people and objects are recognized when some distance away. It is possible he is discriminating adequately in one field of view while the other is blurred.

Using the same card, cover your child's right eye and have him name and describe objects that are in the distance. Then cover his left eye and repeat your request. If there is any real difference in what he can tell you in each situation, clinical attention should be sought. Do not delay this attention because such problems of visual discrimination are never outgrown. Such problems always become more severe with time and unrelieved visual stress.

Clarity of visual discriminations at near distance (within arm's reach) and the ability to maintain these discriminations are extremely important and too seldom evaluated in young children. Any inability here can interfere with learning to read. One of the most critical skills in the reading task is the continued and maintained ability to keep print clear and "in focus." If, while a child is reading, the print appears blurry, there will be an immediate loss of comprehension. A child can be a good "word caller" but not comprehend what he has read because of visual blur--or the doubling mentioned earlier.

To evaluate your child's visual discriminations at reading distances, use the same little card to cover one eye at a time. Ask your child to describe fine details of a picture in one of his favorite books. If your child has learned some letters, these are splendid test targets. Many children who see clearly at distance have difficulty discriminating small details at near. Or, some children may need more time to describe these details when one eye is covered. Such a child may demonstrate these problems by pulling away from the eye cover, or by complaining that "it is hard to do when you hold that card

there." Such a remark suggests the need for a comprehensive evaluation of your child's vision development and visual abilities.

### Clinical Testing and Care

Any difficulty your child shows in these evaluations should be clinically investigated. Such problems should be cared for as soon as possible if your child is to gain the important primary academic skills. The parental observations just discussed are very limited and can never be considered as a substitute for a complete clinical appraisal of abilities.

Your child should have this comprehensive examination several times before entering school. *The first exam should be at age 6 months as recommended by the American Optometric Association.* The evaluation should be done by a fully qualified clinician able to make the appropriate observations and provide the proper visual care when necessary. The vision screening that most children receive in school does not replace this comprehensive examination.

Not every doctor is prepared to work with babies and very young children, or, is fully informed on their vision development. It is essential, when making an appointment, to inquire whether or not the clinician investigates all aspects of vision development and performance as well as the health of your child's eyes. You need an appointment which will give you the best and most relevant information. If your family optometrist, or physician, cannot give you the full information, he or she should refer you to a clinician who can. The clinical assistance is so vital to your child's success in school, and later life, that you must not accept anything less than a fully comprehensive investigation of all visual abilities. Remember: The lifetime advantages from these very important preschool years can come with just a little informed and diligent attention.



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# Preschool Vision Development Checklist

Your child's visual readiness for school starts developing on the day of birth. Every moment of visual experience is a part of the practice and organization which will prepare your child for the visual load of the classroom. This checklist has been prepared by developmental optometrists and informed educators to help you assure your child of the success and pleasure available in all the academic years that lie ahead.

Child's Name \_\_\_\_\_ Age \_\_\_\_\_  
Date \_\_\_\_\_

## 1. APPEARANCE OF EYES:

- Unusual redness of eyes \_\_\_\_\_
- Unusual redness of lids \_\_\_\_\_
- Crusted eyelids \_\_\_\_\_
- Styes, or sores, on lids \_\_\_\_\_
- Excessive tearing \_\_\_\_\_
- Unusual lid droopiness \_\_\_\_\_
- One eye turns in or out with fatigue \_\_\_\_\_

## 2. EVIDENCE OF DISCOMFORT:

- Excessive rubbing of eyes \_\_\_\_\_
- Avoids bright light \_\_\_\_\_
- Keeps eyes closed too much of the time \_\_\_\_\_

## 3. EXPECTED VISUAL PERFORMANCES:

### Birth To 6 Weeks Of Age:

- Stares at surroundings when awake \_\_\_\_\_
- Momentarily holds gaze on bright light or bright object \_\_\_\_\_
- Blinks at camera flash \_\_\_\_\_
- Eyes and head move together \_\_\_\_\_
- One eye may seem turned in at times \_\_\_\_\_

### 8 Weeks to 24 Weeks:

- Eyes begin to move more widely with less head movement \_\_\_\_\_
- Eyes begin to follow moving objects or people (8-12 weeks) \_\_\_\_\_
- Watches parent's face when being talked to (10-12 weeks) \_\_\_\_\_

### Begins to watch own hands (12-16 weeks)

- Eyes move in active inspection of surroundings (18-20 weeks) \_\_\_\_\_
- While sitting, looks at hands, food, bottle (18-24 weeks) \_\_\_\_\_

### Now looking for, and watching more distant objects (20-28 weeks)

### 30 Weeks To 48 Weeks

- May turn eyes inward while inspecting hands or toy (28-32 weeks) \_\_\_\_\_
- Eyes more mobile and move with little head movement (30-36 weeks) \_\_\_\_\_
- Watches activities around him for longer periods of time (30-36 weeks) \_\_\_\_\_
- Looks for toy he drops (32-38 weeks) \_\_\_\_\_
- Visually inspects toys he can hold (38-40 weeks) \_\_\_\_\_
- Creeps after favorite toy when seen (40-44 weeks) \_\_\_\_\_
- Sweeps eyes around room to see what's happening (44-48 weeks) \_\_\_\_\_

(OVER)

# Vision Development

More than 98 percent of all infants are born with normal, healthy seeing organs--the eyes. Many authorities believe this high rate of normalcy occurs because the eyes and the entire visual system are so important to humans.

However, the normal health and structure of the eyes do not guarantee that your child will be able to use those eyes efficiently in the world he must see and interpret. The classroom, into which your child enters around the age of six, demands much of vision. This classroom, and its special tasks, demands visual abilities and skills every child must learn before he enters school if he is to be successful there. These abilities and skills are learned much better by your preschool-age child when you (and all others caring for your child) know how to evaluate your child's progress, and how to guide and assist this vision development for future academic success.

Numerous studies have shown that freedom of eye movements, and the skills of getting visual attention on targets for inspection, are directly related to reading readiness. These visual abilities will not teach a child to read, but when these skills are present, the teacher will have a child who is much more ready for reading instructions. Some children will not learn to read because they have no interest in reading. The majority of children who fail to achieve reading skills often demonstrate problems in the freedom and control of eye movements. Your child need not experience these difficulties. Instead, freedom and control of eye movements enhance the development of intellectual potentials.

This guide is designed to give you enough information about vision development so you can make intelligent observations, and know when, where and how to help your child. The checklist, which accompanies these notes about vision, can be your way of knowing where your child is on the scale of developing the necessary visual abilities. Because the sequence of development is more important than the age at which it's developed, all ages given on the checklist are approximate. If your child lags behind the scale by more than four to six weeks in the time from birth to the age of two, or more than six weeks from age two to age five, professional help should be sought to assure your child's successful performance in his academic future.

