

Top 10 Tips for Optical Device Use

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This page gives a quick summary of some ideas for helping your child improve skills with optical devices (magnifiers, telescopes, glasses.) A couple of the items that follow apply to all devices. Most of the items refer to either a near (magnifier, glasses) or a distance (telescope) device. A book titled *Looking to Learn: Promoting Literacy for Students with Low Vision* (Frances Mary D'Andrea) gives good ideas for activities at home and at school to build skills.

Optical devices are carefully designed tools that work best when matched to the specific needs and vision of your child. A low vision specialist, an eye doctor trained in low vision, should be consulted to recommend the best tools. This medical professional focuses on individual goals and functioning in everyday tasks.

The teacher of students with visual impairments (TVI) and/or the Orientation and Mobility specialist (O&M) who works with your child can give more information on topics such as techniques for focusing, outdoor use, or comfortable positions for device use. Your child may also have an IEP goal written on learning to use optical devices.

1. An optical device makes objects look larger so things are easier to see. This means that you can help your child focus the device. Your child may “re-set focus” slightly but you can help by checking that the view is not blurry. These devices are made of inexpensive materials (metal or plastic and a clear lens) but they need to be taken care of to last and work well.
2. Setting focus takes a little practice but quickly becomes second nature for the device user. Turn the middle section (the barrel) of the telescope to set focus. The “closed” or shortest position of the telescope is the best starting point. Turn the barrel slowly *while* looking through the scope. As the barrel becomes longer or is more “open,” the user is able to see things that are just beyond arm’s reach. Test this to see how it works.
3. Matching the tool your child uses to his or her level of vision is very important. The device your child receives is a specific power or strength, for example 3x for 3 times magnification. The ideal formula is having the widest field of view through the lens with *just enough* power for comfortable viewing. Too much power can be a problem and make using the tool frustrating.
4. An optical device is versatile but one tool is not able to do all tasks. The 4x or 6x telescope may work well in a classroom (15’ viewing distance.) In an outdoor setting, your child may need an 8x for reading signs across the street (40’ viewing distance).

5. Getting the telescope lens as close to the eye as possible is the big goal. Most scopes have a soft rubbery end that is the eye piece cup. It helps to block out glare and to direct eye gaze. Some users prefer to keep their glasses on while using the telescope and others prefer to take off their glasses so that they gain the widest field of view through the lens. This is a personal choice for each user.

6. Two styles of magnifiers are common—a stand type that stays flat on the page (e.g., a dome magnifier) and a handheld that is lifted off the page. A stand is built to always be in focus when it's flat on the page. This type is good for young students who are exploring the page. The best viewing position of a handheld magnifier has space between the page and the lens and the lens and the eye. This is the work distance. The magnifier is not working at its best if it is flat on the page or held against the user's eye.

7. Reading a page of print with a magnifier or reading glasses (sometimes called microscope lenses) takes practice, concentration, and stamina—like an athlete learning the skill of handling a ball. Fluent readers stay on a line of print and move to the next line smoothly. Some students use their finger or a line guide (a ruler-sized piece of paper) to mark the line. Once the eye and brain have practiced reading with a magnifier, the line guide is used less and less.

8. Learning to use a tool can be hard work. Sometimes, people stare when they see someone using a device and this can be awkward. Help your child develop skills with the device and feel good about using it by practicing at home or away from others. Start with high interest items such as finding a favorite cartoon character on the TV at a 10 foot distance with a telescope or reading the bright advertisements in a store's weekly ad with a magnifier.

9. Your child will build skill if adults help with practice and encourage regular use. Your child can use the telescope to read signs or traffic signals when you are doing errands. Your child can read information on food packages to you during kitchen time while cooking or washing dishes. Look for times each week that you expect and need your child to use devices to find information for you.

10. An optical device is as important as house keys or a cell phone. This tool gives access to what is valuable and important. Each tool should have a carrying case when being used away from home and a specific place to be kept at home so the user always knows where it is when needed. Your child can show others (e.g. siblings, neighbors) how it works, but this tool is like an extension of his or her eyes. Being able to grab it quickly and knowing that it is ready to use are first steps to success with devices.