

Visual Efficiency

Visual efficiency refers to a group of skills that allow the eye muscles to comfortably see clearly, maintain focus and use both eyes together easily to take in visual information effectively and efficiently. It includes:

- Fixation: maintaining gaze on stationary object
- Tracking: following a moving object through a path – horizontal, vertical, diagonal, rotational
- Scanning: tracking along a stationary object such as a line of print for reading
- Saccade: Quick shift and focus between two locations
- Convergence: Eyes moving toward each other to focus on near object.
- Divergence: Eyes moving away from each other to focus on object in distance.
- Accommodation: Alternating focus on near and far point objects

Signs of difficulty with visual efficiency skills include:

- Full or partial covering or closing of one eye
- Tilting the head, turning the body or laying head on desk
- Complaints of double or blurred vision
- Excessive blinking, eye rubbing or squinting
- Headaches, dizziness, nausea, excess fatigue during reading
- Eye movement is jerky or eyes don't appear to be moving together
- Difficulty aligning numbers during math
- Difficulty copying between two sources, especially between near and far point
- Difficulty finding objects or words on page, on the board or in a room
- Moves head and neck excessively when reading
- Loses place often, requires finger to keep place
- Reads same word/line over and over, skips lines or parts of lines, loses place, requires using finger to read, omits letters or words or inserts extra letters or words consistently, or starts sounding out words in the middle

Accommodations that may help:

- Position student at front and center
- Ensure proper ergonomics and support with desk and chair
- Working on stomach or on hands and knees helps with eye teaming and tracking, working curled up as in beanbag chair helps with convergence
- Slantboard or slanted desk or other vertical surface
- Natural lighting if possible, or adequate lighting if not possible
- Decrease visual clutter and distraction, try study carrels
- Use visual blocks – cut square out of construction paper to show just one math problem, use a reading strip to keep place on page, cut a worksheet apart and do it in chunks, fold part of a sheet away, put sheets or books in a file folder cut into strips
- Guide or finger during reading and writing
- Specialty paper – raised line, colored lines with space between lines, use graph paper or turn regular lined paper vertically for math alignment
- External spacers such as popsicle sticks, post it notes, finger, etc
- Clean copies with whitespace around important areas, try light blue, gray or orange paper
- Visual organizers and cues: use of color (highlight letter combos in spelling words, math signs green + and red -, color writing margins green on left and red on right) bold, underline, arrow or star important directions or where to start on a worksheet or map, where to turn in papers, alternate colors for lists, etc.
- Multisensory strategies: use auditory input (music and rhythms), movement, add texture, heavy work, oral input
- Reduce amount required to copy, provide copy at desk of whatever's on board, student can fill in short blanks or highlight instead of copying
- Provide breaks for eyes

Here are some activities you can do to help visual efficiency development. Start with activities further from face then go to near point and pencil paper work. Encourage little to no head movement during activities if they can. If they can't, step it back by having them perform with weightbearing through shoulders or while supporting head with hands or allowing to move head.

- Toss or kick a ball, beanbag or Frisbee, or bat a balloon to partner or around whole class and with every toss, students start/continue a story, spell words one letter at a time, recite math facts, count by 2's, list capitals, name the parts of the body or a plant, list facts of historical event or story you are reading, name all they can think of that fits into category you provide, review something they learned yesterday, etc.
- Put manipulatives on desk, count them using only eyes
- Flashlight tag or flashlight follow-the-leader, or turn out lights and draw/write something on ceiling for child to guess
- Wall pushups with sight words, spelling words, math, etc.
- Watch movement in classroom without moving head – teacher steps forward and back or move pointer or ball
- Mazes, connect the dots, word finds, crosswords, color by number. Big connect dot numbers on board – have them draw lines with eyes.
- Where's Waldo, I Spy, find the difference books and worksheets, hidden pictures, cross out all of the letter a or spelling words or alphabet on worksheets or old magazine/newspaper articles or info they are going to read
- Cryptograms, plot/graphing activities, finish or mirror drawings, tracing paper to trace pictures
- Puzzles – jigsaw, magnetic puzzles, etc.
- Board games, Bingo, Grabbin Grasshoppers, Mr. Mouth, Perfection, Spot It, Snackin Safari, Sorry, Trouble, Set, Wordarounds, Kanoodle, Rush Hour, Qwirkle, I Spy Snap, Elefun, Scaterpillar Scramble, Chutes & Ladders, Fishing, Candy Land, Connect 4, Bingo, Cookin Cookies, Memory
- Block building and bead sequence from model, tangrams – try having them lay on tummy and have model to copy far away
- Blow/pop bubbles
- Lazy 8's – have child draw an infinity sign (a number 8 lying on its side) in the air with their thumb, following their thumb with their eyes, can also practice writing letters, spelling words, etc. while following thumb movement
- Streamers (ribbon, crepe or toilet paper) to dance, write spelling words, etc
- Computer and smartboard games/apps – TONS out there, some ideas:
- <http://eyecanlearn.com/>
- <http://playwithyourmind.com/>
- http://www.learninggamesforkids.com/hand_eye_games.html
- www.pbclibrary.org/mousing/mousercise.htm
- www.pbclibrary.org/mousing/games.htm
- <http://www.highlightskids.com/hidden-pictures>
- <http://www.tvokids.com/games/caterpillarcount>
- <http://www.tvokids.com/framesets/play.html%3Fgame%3D51>
- <http://www.tvokids.com/games/coincombo>
- <http://www.tvokids.com/games/tumbletownmathletics>
- <http://www.minimouse.us/ShapelInvasion.htm>
- <http://www.minimouse.us/BurnedOut.html>
- www.minimouse.us/DiggingForWorms.htm
- http://www.abcya.com/alphabet_number_magnets.htm
- http://www.abcya.com/uppercase_lowercase_letter_matching.htm
- http://www.abcya.com/kindergarten_alphabet_bingo.htm
- http://www.abcya.com/dolch_sight_word_spelling.htm
- <https://www.gonoodle.com/brain-breaks/airtime/play>
- Speed reading videos on youtube
- Apps with finding floating letters, bubble popping, throwing snowballs or paperwads etc at target, Simon, Tetris, Fruit Ninja, ABC Ninja, Temple Run, Ms. PacMan, Angry Birds, Table Hockey, Candy Crush, Whackamole, Frogger, Jump Chump, Find the ball (under cups), Action Potato, Cookie Catch, Counting dots, Visual Attention Lite, Eye Exerciser Lite, Captain Lazy Eye Lite, Letter Reflex