

Development of eye-hand coordination skills

1. For babies and toddlers, use balloons, bubbles, a ball on a string or a colorful ball rolling toward the child to see if you can secure their visual attention and hold it. Balls with bell or other types of sound making capability are great for extending the length of time that the child will maintain visual attention on the object. Hopefully, the child will reach for and touch the object as well. As she gains skill and control of her arms, she will be able to reach out and touch, hold or roll the ball back to you.



2. For toddlers and older, play catch
 - a. With a balloon- Using a balloon is a great way to start building eye-hand coordination skills. A balloon will move more slowly than a ball and this will allow your child to be more successful.
 - i. Begin by playing catch. Make sure to stand close enough that your child can catch most of the tosses you send her way. Gradually move away as she gets more adept.
 - ii. Try to get your child to bat the balloon back to you using a flat hand.
 - iii. Increase the level of challenge by having your child sit or stand on an unstable surface, such as a balance board, a therapy ball or an air-filled cushion.
 - iv. Once the child is able to play balloon with ease, try using rackets to hit the balloon back and forth. See if your child can

hit the balloon straight up into the air repeatedly using a racket. This requires fine control of the force, as the balloon will be much easier to control if it is hit gently. Finally, see if your child can walk on a line or traverse a simple obstacle course (like avoiding a chair in her path) while keeping the balloon afloat with the racket or her hand.

b. With a ball

- i. **Structure for success** - no one wants to engage for any length of time in activities that are such a challenge that they feel impossible. If you begin tossing a ball with your child and she misses more than 75% of your throws, she will soon become frustrated and want to stop. To make both throwing and catching easier, move closer, throw more softly, and aim right at her hands.
- ii. **Give verbal cues** such as, “Hands up!” or “Are you ready?”
- iii. While you play, **consider the type of ball you are using**. When playing catch, use a ball that will be easy for the child to catch. If the ball is consistently “slipping through” your child’s hands, use a slightly larger ball. In some cases, just because a ball is larger, it may not be easier to use. For example, beach balls are often large, but may be too light for some children and that may make the task harder. A ball with some weight to it could help increase success by enhancing proprioceptive input, which is the muscle and joint sense.
- iv. Remember, **to build skills, children need repetition and practice**. They need to feel competent, but also need the level of challenge to be enough that they are not bored. This is why you just keep introducing new and different ways to play!



- c. With bean bags and sandbags-using bags is an excellent option because it provides extra proprioceptive feedback to the child as the bag falls into their hand.
 - i. As with ball play, think carefully about how close you are standing to your child and what type of bag you are using. Structure for success!
 - ii. If needed, start with a sequence where you hold onto the bag as you steadily move it toward the child's hands. Release it at the last minute so the child has success. As this becomes easy, gradually increase the distance of the drop. Encourage your child to maintain visual focus on the beanbag.
 - iii. Think about alternative positioning options, such as seated on a therapy ball, peanut or vestibular board, or standing on a vestibular board.
 - iv. For a complete sandbag and ball program designed to promote midline crossing of the body and the eyes, integrated with the auditory and vestibular (balance) systems, check out the Bal-A-Vis-X program at www.bal-a-vis-x.com. This incredible program, which is evidence based, was designed by Bill Hubert, in the Wichita, Kansas public schools. Mr. Hubert was working with the lowest performing quartile at a middle school. These were kids in 7th and 8th grades who were reading at a 1st and 2nd grade level. Many of them also had significant delays in math, learning to write, spell and express their ideas verbally. He kept data with pretests and post-tests as he developed and implemented this extraordinary program, over the course of several years. In the initial years, the participants gained on average, 2 academic years of skill in math, spelling, and reading levels, each year they participated in the program. As the years have gone by, he has continued to modify and improve on the amazing program. Check it out!
- d. With a medicine ball-this offers you enhanced proprioceptive input and an opportunity to build core strength and arm strength as you play
 - i. Begin with rolling the ball, either seated on a chair, a bolster, or on the floor.
 - i. Tossing the ball back and forth in standing position is a great way to build strength as well as eye hand coordination. This

requires a fair amount of strength as well as ability to catch. Do not try this until the child is able to catch a playground ball fairly well because the medicine ball can cause a jammed finger if the child fails to catch it, and instead it hits the extended finger at the fingertip.

- ii. Increase the level of challenge by using a heavier medicine ball, moving farther away, and changing the positioning of the child during play. Having the child sit or stand on a vestibular board will engage the vestibular system and should improve skill performance.
3. Play target games-these games are a potent motivator for kids. As always, make sure to structure the initial task for success and adjust as you go to increase the challenge and build skills.
- a. A target can be a bucket or box that the child is trying to throw into, or a hula hoop or a tire that provides an area that could be identified as a “pool” or a “pond” to incorporate pretend play into the game. You can also use large paper targets taped on the walls.
 - b. Once the child can successfully hit the target more than half the time, begin increasing the level of challenge by:
 - i. moving the target farther away
 - ii. tossing the balls or bags to the child before they throw them in
 - iii. giving verbal directions
 1. Simple verbal directions will add an auditory component and challenge the child to process multiple sensory channels at once
 2. Using more complex verbal directions will help build auditory processing, auditory memory skills, and sequencing skills.
 - iv. Assign point values to different targets and use them to practice math skills as you play





4. Play Racket games

- a. The obvious-hitting back and forth, can be introduced with a balloon, to support success by slowing down the target. Once the child can comfortably engage in back-and-forth play with the balloon, move on to using a Gertie ball and then a regular ball. You may need to play games in which the goal is to have the ball bounce once before hitting back to make it a bit easier at first.
 - b. Have the child try to hit a balloon or ball up in the air and then hit it again with the racket, bouncing it up in the air repeatedly. With a balloon, this will take a considerable level of ability to control the force used to hit the balloon. This task can only be done if the balloon is hit very lightly, so the excursion is very small and the balloon floats down right where it was hit up.
 - c. Once the child can hit the balloon and control it, have him try to walk on a prescribed path while keeping the balloon in the air and coming along with the child on the path.
 - d. Next try using the two sides of the racket alternately to keep the balloon or ball in the air. This will promote forearm rotation.
 - e. Another challenge would be to use one racket in each hand and see if the child can bop the balloon from one to the other.
5. Try the activities described in the section about building shoulder stability and arm strength, these will all build eye-hand coordination as well.

6. Play a ball and cup game with tennis balls and plastic or paper cups. Hold your cup upside down and use it to catch the tennis ball as it comes to you and then send it back to your partner. You can hold two cups, one in each hand, and roll the ball from your right to your left, catching it each time with the cup. You can make a rectangle pattern by sending the cup to your partner, having hem roll it from one hand to the other, then send it back. Make sure to go both directions. This can also be done with two balls simultaneously, with each person sending a tennis ball to the other at the same time. Kids are amazed at being able to do this and this will really encourage them to move their eyes across the midline, which is great. This activity also promotes visual tracking skills and wrist control as well.

7. Play Baseball, tee ball, or golf

Developing eye-foot coordination

1. Play kicking games: kick a ball back and forth, at a wall or a soccer net or just give the child a ball and see what happens!



You can set up target, which could be bowling pins or a tower of blocks or boxes, and see if your child can kick a ball to knock them down.

2. Try having your child sit with her hands on the floor behind her, and kick the ball back and forth using both feet together. This activity builds abdominal muscles and offers weight bearing on the arms which builds shoulder stability and is a good trunk challenge.
3. Play stepping stone games

For better sound-symbol association skills

1. Play games that challenge the child to attend to rhythm
 - a. Bounce and catch in rhythm- use preferred hand and once the child is proficient with that, try to get the child to use non-preferred hand
 - b. Try each having a ball and bouncing in unison
2. Have older children bounce and catch or bounce against a wall as they practice spelling words or math facts