

At Home Learning for Children with Orthopedic Impairments

Children are like sponges soaking up knowledge from all around them. The early years are known to be a time when learning takes place at an exponential rate. As a parent it can be hard to catch and capitalize on all the opportunities for learning each day. Not to mention the recent health emergency (COVID-19) that brought young learners who were thriving in early childhood programs back home. This situation has proven challenging for parents in numerous ways, from rearranging schedules and routines to finding different ways to occupy and engage their children in meaningful learning activities.

The field of Early Childhood Education has risen to the occasion to provide a vast array of ideas, resources and activities to intentionally engage parents and their children in learning at home. However, resources for special learners seem to be in short supply. Special Education is a little more challenging because of the unique strengths and challenges of each child with a disability. As a parent of a child with orthopedic impairments, for example, you may be having a harder time finding activities that truly fit your child's specific learning needs.

Let's look at few general learning activities to see how they may be adapted for a child with an orthopedic impairment:

- Simon Says- could be modified by using imitation of hand and arm movements for a child in a wheelchair.
- Bowling game- add a ramp for a child in a wheelchair
- Throwing game- use a "sock ball" thrown at a target to practice hand/eye coordination.
- If a child has difficulty holding small toys, sponge hair curlers or pipe insulation could be used to build up handles or Velcro straps could be attached to the handle and hand.
- Puzzles could be modified with knobs or handles from the hardware store.
- A three - ring binder could be used to make a modified slant board.
- Papers could be taped to the table for stability
- Using markers requires less pressure than crayons, they may be a good alternative for a child who cannot press hard enough with crayons.
- Velcro could be attached to blocks to help them stay together.

*Your occupational and physical therapist will also be great resources to check in with for developing and adapting activities for your child's specific needs.

On the following pages, you will find two more specific at home learning activities designed especially for children with orthopedic impairment(s) in mind. These activities could be for a child between the ages of two and five. The first activity details how to create an obstacle course to target large muscle development as well as creating a fun and mentally challenging experience. The second activity is "Follow the Leader". This targets receptive language (listening and following directions), large muscle movement, joint attention, and imitation skills.

Home Learning Activity Plan

Name of activity: Home Obstacle Course

Ages 2-5

Author : Kelsy Wooldridge, with Lexi Bulkley and Rachel Stoddard

Wyoming Early Learning Standard(s) addressed: Develops motor control and balance for a range of physical activities, such as walking, propelling a wheelchair or mobility device, skipping, running, climbing, and hopping.

Learning Outcomes: Children will practice muscle strength, balance, and coordination as they build and climb through an obstacle course made of materials found in the home.

Materials in the home:

Pillows, cushions, chairs, paper, toys- anything that you can crawl under, jump over, or move around!

Activity description

This obstacle course activity is all about challenging your child to move their body in a fun and motivating way. You and your child can choose the materials that you will use to build the obstacles, and decide where to place the obstacle course. Some places in your home that might work well are a hallway, living room, or dining room, but feel free to choose any space that inspires you.

Use objects like couch cushions, chairs, and toys to place on the floor to create an obstacle course. Talk with your child about the different ways you can get around each obstacle: "Would this chair be good for climbing over or crawling under? How should we get around this big pillow?" If your child is hesitant to try, show them one or two ways to get through the obstacle using your own body. You can also use paper to draw arrows on and place around the obstacle course for guidance on which way to go.

If your child uses a walker or wheelchair, try placing toys or chairs around the floor so that they can weave in and around them, like traffic cones on a road. Depending on your child's age and abilities, you can adjust the length and difficulty of the obstacle course so that it is just challenging enough to be exciting, but not so challenging that it is discouraging or scary. For younger toddlers, focus more on crawling under and around smaller obstacles, such as draped blankets. Having your child help build the course and make the decisions about how to do it will keep your child interested and working at their own pace and skill level. Encourage your child to go through the course as many times as they can!

Multiple ways to recruit your child's interest and engagement

- Enthusiastically ask your child to build an obstacle course with you. You can suggest that you pretend to be pirates, monkeys, volcano climbers, or whatever your child is interested in as you create your adventure.
- Place an obstacle somewhere in your home where your child will definitely encounter it. "Uh-oh, what do we do now?"

Multiple ways to share information with your child

- Model new or tricky skills (crawling, climbing, turning) by showing how to do them with your own body
- Think out loud to help your child choose how to approach a hard obstacle. Ex: "Hm, it looks like the cushion sinks too low when we climb on top. I wonder if there's another way to use the cushion. Could we fit under it, or go around it?"

Multiple ways for your child to demonstrate what he or she knows and can do

- Demonstrate strength and balance by lifting, moving, and placing objects around the room as they build obstacles
- Use a variety of skills to navigate the obstacle course (walking, crawling, jumping, etc.), with or without adult assistance



Ways to encourage language during the activity

- Question your child about where to build obstacles and how to get through them. Prompt further explanation by acting silly and purposefully doing it incorrectly.
- Pretend you are pirates, or people exploring a volcano with hot lava. Create a story and rules to follow as you play.

Home Learning Activity Plan

Name of activity Follow the Leader

Ages 3-5

Author Rachel Stoddard, with Kelsy Wooldridge and Lexi Bulkley

Wyoming Early Learning Standard(s) addressed

Domain 7: Physical Development + Health- Develops motor control and balance for a range of physical activities, such as walking, propelling a wheelchair or mobility device, skipping, running, climbing, and hopping.

Learning Outcomes

Children will practice motor control and muscle strength as they follow different types of movements during the game.

Materials in the home

Anything that you would like to use during the game. (Books, pillows, cans, chairs, etc.)

Activity description

Follow the leader is a fun game, but it can also be used to help your child gain and practice their muscle strength in different areas. For this activity, choose actions that will have your child work their whole body. You can have them do a bear walk (try doing lots of animal walks/movements, it's fun for the kids), march throughout your home with you, jump over different obstacles (like pillows), climb over chairs, crawl, skip, run, hop, and you can even have them carry items that are heavy for them (like books or cans). After you are the leader for a while, give your child a chance to lead and choose their own movements.

For children who may be in a wheelchair, choose movements that will help them. You could have them do many different types of actions with their arms, hands, and fingers; they can even follow your movements throughout the house to gain strength in moving their wheelchair. For infants or toddlers, you can still do this activity! Babies love to mimic what their parents do, for these young children you can have them clap with you, crawl with you (even if they can't crawl yet, it would be a great time to help teach them). Another thing you could try for infants is for you to do it and then help them do it. You could hop or bounce, then hold them and do the hopping/bouncing motion with them.

There are many ways you can choose to do this activity. Any types of movements you can think of will help strengthen their muscles.

Multiple ways to recruit your child's interest and engagement

- Be excited about the activity! If they see how much fun you're having they will be more interested in it.
- If they're able, give them a chance to be the leader.

Multiple ways to share information with your child

- Before you show them the motion or movement you're going to do, tell them what you're doing and explain how you're able to do it. Ex: "I'm going to walk like a bear, first I'm going to bend down and put my hands on the ground, then I'm going to lift my legs up so only my feet and hands are touching the ground, then I'm going to move my hands and feet to walk."
- You can draw them pictures of the different types of movements you're going to try that day so that they're prepared for what comes next.

Multiple ways for your child to demonstrate what he or she knows and can do

- demonstrate strength by following your movements
- modifying or changing up what you're doing to something easier for them Ex: you could walk like a bear on your hands and feet, then they'd walk like a bear on their hands and knees

Ways to encourage language during the activity

Talk about what you're doing, describe it to them. Have them describe back to you what they're doing too if they're able. Give them a chance to be the leader and give you directions.



UNIVERSITY
OF WYOMING

Wyoming Early Childhood
Outreach Network