**Physical Impairment**

Physical disabilities relate to individuals with limits on physical abilities and medical conditions such as strength and stamina. The involvement may affect any muscle or nerve in any part of the body. The person may require a wheelchair, crutches, walker, braces, or a cane. Some physical disabilities are genetic. Others result from being born premature, birth complications, accidents or diseases.

**Diseases**

* Rheumatoid arthritis: The joints (where bones join together) become hard to move. Movement becomes painful.
* Multiple Sclerosis (MS): The nerves are damaged so that messages from the brain do not travel to the muscles to produce movements.
* Muscular Dystrophy (MD): A genetic disease that gradually weakens the body’s muscles that control movement.
* Cerebral Palsy (CP): This is not an illness, but occurs when the brain becomes injured before, during, or shortly after birth.
* Paralysis: This occurs due to nerve or spinal cord injury. Common causes are automobile collisions and accidents involving serious falls.
* Paraplegia: This is nerve destruction affecting the muscles below the waist.
* Hemiplegia: This is nerve destruction affecting one vertical half of the body.
* Quadriplegia: This is nerve destruction affecting the muscles below the neck.
* Birth defects: Normal development of the body did not occur before birth.
* Amputation: The removal of an arm or a leg in surgery, in an accident, or as a result of a congenital defect.
* Spina Bifida: A birth defect in which the bones of the spine do not close during development of the fetus and injury occurs to the spinal cord and nerves.
* Stroke: Blood circulation is impaired to a certain area of the brain, which causes the brain cells to stop working correctly.

**Activities for the Physical Impairment Stations (cont.)**

**Gross Motor Impairment – Station #6**

* + - 1. Use the walker, quad cane, and lofstrand crutches to move about. The student should pretend to have a weak or broken leg. Using the walker, the student positions the walker one step ahead and then transfers the weight as he moves forward. Using crutches, ask the student to bend down and pick up something like a book. The correct way to do this is: transfer one crutch to the other hand, bend down, pick up the book while supporting yourself with the other crutch, stand up, transfer the second crutch back to the other hand. Most students forget to support themselves or they move the crutches around so as to wipe people out in a crowded hallway.
      2. Try to balance on the T-Balance Seat. A T-balance is a therapeutic tool used to improve balance. The purpose of this activity is to feel lack of balance sensations. Be sure the student keeps their feet together. If it is an adult participant, use a walker to position them on the T-balance and keep the walker in front of them during the activity. Role-play a classroom setting while they are seated. Examples include: ask them to hand in papers, pass a note to the person behind them, raise their hand to answer a question, and give you eye contact as you pace teaching a lesson. If the student is at total ease with this activity, give them a nudge while standing ready to catch them in case they fall.

3. Sit on the floor or a chair next to the reacher activity table. Pretend that you cannot reach the shelf because your muscles or bones do not work well. Use a reacher to pick up items from the table and place them in the basket on the floor. There are two styles of reachers to use. Which reacher do you like the best? Does one style work better for certain types of objects? Now use a reacher to put the items back on the table neatly.

1. The head pointer and alphabet sheet are communication devices used by people who are severely physically impaired. People who use head pointers cannot speak or move their hands well. This is old technology. Today, there are lightweight laser pointers attached to a headband that activate a computer screen. In addition, notice the picture of a women painting a picture using a paintbrush in her mouth. When a person cannot move their arms and legs, he or she may compensate by holding things in her mouth.

**Optional:** Encourage the students to look at the display board if time allows.