**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.)**

**Fine Motor Impairment and Sensory Integration Dysfunction-Station #7**

* 1. Write with the adapted pens and pencils. Cut with the adapted scissors. These devices make it easier to write and cut when muscles are weak.
  2. Write your name by holding a pencil with a pair of pliers. This shows that it is difficult to hold a pencil in an unnatural position and to still make legible writing.
  3. Write your name with a squiggle pen. This shows what it is like when there are tremors of the hand or there is less control of your hand’s movements.
  4. Find pennies in the jar of exercise putty. This strengthens hand muscles when one is poking around in the putty. Use the handgrip exerciser too. People use these to strengthen their weakened hand muscles when they are weak.
  5. Turn the pages in the book with the page turner. People use this device when they have limited hand and arm motion.
  6. Put on the gloves and try to complete a puzzle, pick up poker chips, string beads, zipper, tie, button, snap and work the latches board. It is unsafe to live alone if a person cannot find a latch that they can maneuver easily. The biggest lesson from these activities is that people can still do everyday things, but it is awkward and it takes more time.
  7. The Movin' Sit cushion, weight vest and sensory brush are all examples of commonly used sensory integration equipment. Sit down on the Movin’ Sit blue wedge cushion. This helps some students stay seated. It allows active students to wiggle around without leaving the chair. It also provides constant sensory feedback to students with sensory integration concerns.
  8. Put on the weight vest. This vest gives deep pressure that helps calm people whose senses do not work well. The vest also helps strengthen weak muscles. People who need these vests wear them for about twenty minutes at a time.

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

* 1. Rub the sensory brush up and down your arm. This therapeutic tool is used to modulate a person's sense of touch. People with under reactive touch (do not feel pain well) are alerted. People with over reactive touch (everything picks or annoys) are calmed. How does this feel to you?

**Optional**

There is a display board for this impairment station that offers more information. Encourage the students to look at the display board if time allows.