Name _____ Date _____ Class _____

Barrier-Free Kitchens

Directions: Read the following selection. Then answer the questions under *Thinking Critically,* and complete the activities as directed by your teacher.

The number of disabled Americans ranges from 20 million to 50 million people. Many of these people depend on wheelchairs or other devices for their mobility.

A standard kitchen presents many difficulties for a person in a wheelchair. For example, a standard kitchen counter is at shoulder height for a wheelchair user. Cabinets, sinks, and appliances with flush fronts require the person to place the wheelchair in a parallel position and then twist sideways. Above-counter cabinets are unreachable.

The kitchen in a new home can be designed to meet the special needs of wheelchair users while still retaining convenient usage for all household members. Shelf-type worktops set at a low height permit a person in a wheelchair to roll under them and work at a comfortable level. Special countertops, cabinets, and even cooktops that can be raised or lowered at the touch of a button meet the height requirements of any household member. Bar or roller movements for appliances, pull-out surfaces, a tilting sink with a spray hose, and other features can make food preparation easier.

The kitchen in an existing home can be adapted in various ways. To begin with, ease of movement is important. This may mean widening doorways, eliminating raised thresholds, and replacing doorknobs with levers.

The sink can be made more accessible by removing cabinet doors and cutting back the cabinet base so that a wheelchair can roll right under the sink. (Insulating hot water pipes will prevent leg burns.) A 36-inch (91-cm) long spray hose at the sink will aid in rinsing dishes and filling pots.

An accessible food-preparation area is essential. This can simply be a small breakfast table or a fold-down table hinged to the wall. Alternatively, removing cabinet doors and cutting back the base cabinets can allow a front approach to the counter. A pull-out carving board is a handy extra.

Another possibility is to adapt a section of the base cabinets by mounting a 30-inch (76-cm) section on heavy-duty shelf brackets adjustable to alternative heights. Recommended increments are 28, 32, and 36 inches (71, 81, and 91 cm), which is the standard height.

Other adaptations might include replacing cabinet knobs with U-shaped handles, attaching holders for food wraps and other items to the backs of cabinet doors, and installing lazy Susans (revolving trays) in the refrigerator and in cabinets, pull-out trays, and shelves. A heat-resistant countertop placed next to the range allows wheelchair users to slide hot containers off the cooktop without trying to lift them.

By far the greatest modification to be made to the kitchen is storage of food and utensils. Heavy pots, pans, dishes, and mixing bowls, along with canned foods, should be kept on bottom shelves. Higher shelves can hold boxes, glasses, small items, and items that are not used often. Pegboards attached to the wall and equipped with hooks can hold often-used pots, pans, utensils, and gadgets. Utensils and small appliances should be placed near the appropriate work areas. To retrieve things that fall or are out of reach, extension grippers or long barbecue tongs are a handy device.

Inventiveness is the key to making a kitchen accessible to a person in a wheelchair. A rolling cart or a table with wheels can be used both as a work center and to move food and dishes to and from the table. A top shelf made of clear plastic enables a person in a wheelchair to see what is on it. A removable mirror attached at an angle to the wall behind the cooktop provides a view of food that is cooking. Replacing metal pots and pans with clear glass cookware is another option.

Laws now require public buildings to accommodate the needs of people with physical challenges. By contrast, many homes and apartments are still constructed with the assumption that they will be occupied only by people without disabilities. Accident or illness can change a person's mobility. The aging process can also affect a person's movement. Therefore, designing homes and kitchens with a person's life span in mind makes long-term sense for everyone.

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Thinking Critically

1. What are some physical conditions, other than those that demand the use of a wheelchair, that might require special accommodations in the kitchen?

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2. Think about a home with which you are familiar. What problems would the kitchen present for a resident in a wheelchair? What problems might someone have who suffers from a loss of strength or mobility because he or she is aging?

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3. What financial problems might accompany a sudden loss of mobility? How would this affect the person's ability to modify a kitchen or acquire special equipment?

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For Further Study

- Examine your kitchen at home. Describe what a person in a wheelchair might need to do to enter, take something from the refrigerator or cabinets, and use the sink or range. Submit your description to your teacher.
- If possible, visit several newly constructed homes during open houses. Would the kitchens accommodate people with physical challenges? What challenges would the kitchens present for someone in a wheelchair or someone who uses a walker? Summarize your findings in a brief report and submit it to your teacher.
- Investigate inventions that are used to modify kitchens for people with special needs. Summarize your findings in a brief report, including cost information, and share your findings with the class.