

Lesson Plan

The learner is a 17 years old white caucasian male. His goal will be to learn to peel, slice, boil and drain vegetables, and especially carrots, as he find them more challenging to cook. His eye history reveals a retinitis pigmentosa with an optic nerve dystrophy on both eyes. His visual acuity is 20/600 iOU, and he has a central visual field of 20 degrees OD and 10 degrees OS. He does not have any other impairments. The learner will soon transition from high school to college, and he wants and needs to learn how to cook independently, and especially vegetables as he would like to continue to eat healthy meals.

1. Statement of the general learning objective and terminal behaviour

Peeling, slicing, boiling and draining carrots

2. Conditions under which the task will take place

Peeling

When presented with six carrots, a cutting board, a swivel peeler and a knife, the learner will demonstrate the ability to peel six carrots, 6 times out of 6 with 90% accuracy, by:

Slicing

When presented with six carrots, a cutting board, a knife and an empty bowl, the learner will demonstrate the ability to slice six carrots, 6 times out of six with 90% accuracy, by:

Boiling and draining

When presented with a bowl of sliced carrots, a pot, a wooden spoon and a strainer, the learner will demonstrate the ability to boil and drain carrots, 1 time out of 1 with 90% accuracy, by:

3. Minimum performance criteria to successfully accomplish the task

Peeling

- a. locating the carrots, the cutting board, the swivel peeler, the knife and the paper towel;
- b. placing the paper towel over the cutting board;
- c. cutting both ends of each carrot;
- d. peeling each carrot;
- e. placing the peels into the garbage bag.

Slicing

- a. locating the carrots, the cutting board, the knife and the empty bowl;
- b. cutting each carrots;
- c. placing all pieces into the bowl.

Boiling and draining

- a. locating the bowl of carrots, the pot, the wooden spoon and the strainer;
- b. placing and entering the pot on the burner;
- c. turning on the burner;

- d. placing the carrots into the pot;
- e. turning off the burner;
- f. draining the carrots.

4. Instructional materials with resource list

- a. 6 carrots.
- b. 2 trays.
- c. Cutting board.
- d. Swivel peeler.
- e. Knife.
- f. Paper towels.
- g. 2 bowls.
- h. Pot.
- i. Wooden spoon.
- j. Strainer.
- k. Oven mitts.
- l. Timer.

5. Detailed techniques or task analysis from which to teach

Peeling

1. The learner will use both hands to locate the cutting board placed in front of him, using the location techniques.
2. The learner will locate the paper towels placed behind the cutting board at 12 o'clock, using both hands.
3. The learner will grab the roll using its non-dominant hand, and with its dominant hand he will unroll a large piece, equal to two sheets.
4. The learner will put back the paper towel, and then, using both hands, he will place the paper towels over the cutting board. Using both hands and the edges of the cutting board, the learner will center the paper towel over the cutting board.
5. The learner will use his non-dominant hand to locate the carrots placed on the left side on the cutting board at 9 o'clock (knowing the learner is right-handed).
6. The learner will grab a carrot with his non-dominant hand and place it on the cutting board, in front of him, horizontally and parallel to him.
7. Then, the learner will use his dominant hand to locate the knife placed at 3 o'clock on the right side of the cutting board.
8. The learner will grab the knife safely by the handle and looking for the flat edge opposite to the cutting edge.
9. The learner will use the index finger of his non-dominant hand to locate the right end side of the carrot. The learner will curved the index finger, by placing the tip of the index finger on the top of the carrot.
10. Then, the learner will bring the knife to the carrot, perpendicular to the carrot and next to the index finger. The side of the knife almost in contact with the nail of the index finger.
11. Once the knife set on the carrot, the learner will remove the index finger from the carrot. With the rest of the non-dominant hand holding the carrot in place, the learner will start cutting the right end side of it, by applying light pressure on the

- top of the knife with the index finger of the dominant hand, and using sawing motions back and forth until the end would be cut.
12. Then, the learner will make a small lateral movement to move the cutter piece to the side.
 13. After, the learner will flip the carrot to cut the other end side.
 14. The learner will place the carrot parallel to him on the cutting board. Then use his index finger from his non-dominant hand to locate the end side of the carrot.
 15. Then, the learner will curve his index finger to make the tip of the index finger touch the top of the carrot.
 16. Then, the learner will bring the knife next to the index finger, on the exterior side, perpendicular to the carrot.
 17. Once the knife set, the learner will remove the index finger of his non-dominant side from the top of the carrot. With the non-dominant hand still holding the carrot in place, the learner will start cutting the end part of the carrot by applying a light pressure on the knife with the index finger while making sawing motions back and forth.
 18. Once the end part will be cut, the learner will make a small lateral movement to move the cutter part on the side.
 19. Then, with his non-dominant hand, the learner will place the carrot at 12 o'clock on the cutting board. After, the learner will use his non-dominant hand to locate and grab another carrot at 9 o'clock of the cutting board, place it on the cutting board horizontally and parallel to him, and repeat the steps 9 to 19 to cut both ends of the five remaining carrots.
 20. Next, the learner will put back the knife on his dominant hand at the 3 o'clock position of the cutting board, and then, with the same hand, the learner will locate and grab the swivel peeler, with the blade in a horizontal position.
 21. The learner will use his non-dominant hand to reach at 12 o'clock for a carrot. The learner will hold the carrot by its top part, vertically.
 22. The learner will bring his dominant hand with the swivel peeler toward the carrot, perpendicular to it with its blade positioned horizontally.
 23. The learner will place the peeler on the carrot, under his non-dominant hand, and will start peeling the bottom part of the carrot, away from the body.
 24. The learner will peel the carrot with the blade of the peeler facing downward. Using a consistent pattern, the learner will slowly rotate the carrot vertically to cover the bottom part.
 25. Then, the learner will flip the carrot to peel the top part using the same pattern. Placing the peeler under the non-dominant hand, perpendicular to the carrot, peeling downward, and slowly rotating the carrot vertically to cover the rest of it.
 26. After, the learner will check tactually to make sure that all peel will be removed.
 27. Then the learner will place the carrot in a bowl of water at 10 o'clock of the cutting board, next to the paper towels.
 28. After, the learner will locate and grab another carrot at 12 o'clock on the cutting board with his non-dominant hand, and repeat the steps 21 to 27 to peel the five remaining carrots.
 29. Once all the carrots will be peeled, the learner will put back the swivel peeler at 3 o'clock of the cutting board, next to the knife.

30. Then, the learner will use both hands to locate each side of the paper towel, bringing them together to lock up the peels inside the paper towel in a big ball.
31. The learner will hold the big ball of peels with his dominant hand, and with his non-dominant hand he will trail his kitchen counter to reach the garbage bag and throw the peels in it.

Slicing

1. The learner will use both hands to locate the cutting board in front of him.
2. The learner will use both hands to search on the cutting board, to make sure that no peels from the previous task have been forgotten.
3. The learner will locate the bowl of water with the carrots in it, from the previous task, at 10 o'clock of the cutting board.
4. The learner will grab a carrot and place it on the cutting board horizontally, and parallel to him, with his non-dominant hand.
5. The learner will use his dominant hand to locate and carefully grab the knife by the handle and locate the flat edge to identify the top of the knife, opposite to the cutting edge.
6. The learner will use the index finger of his non-dominant hand to locate the end part of the carrot.
7. The learner will place his index finger on top of the carrot, extend it to make the tip of the finger aligned on top of the carrot.
8. Then, the learner will curved his index finger, so the tip of the finger touches the top of the carrot. The first phalange of the index finger is now perpendicular to the carrot.
9. Then, the learner will bring the knife with his dominant hand toward the carrot.
10. The learner will place the knife perpendicular to the carrot, and parallel to the index finger. The edge of the knife almost touching the nail of the index finger.
11. Once the finger will be set on the carrot, the learner will remove the index finger of his non-dominant hand from the top of the carrot. With the other fingers of the non-dominant hand keeping the carrot in place, the learner will start cutting the carrot by applying a slight pressure on the knife with the index finger of the dominant hand extended on top of the knife, and with sawing motions back and forth.
12. Once the piece will be cut, the learner will make a small movement laterally to fully separate the piece cut from the rest of the carrot.
13. Then, the learner will continue to cut the carrot by repeating the steps 6 to 12, until the carrot will be completely cut.
14. After cutting the first carrot, the learner will put back the knife next to the cutting board, and use both hands to locate of the pieces of the carrot.
15. The learn will grab all the pieces and place it into the empty bowl at 2 o'clock, next to the paper towels.
16. Then, the learner will repeat steps 3 to 16 to cut the remaining carrots.
17. After, the learner will locate the bowl with all the pieces of carrots, grab it with his dominant hand, and with his non-dominant hand trail the kitchen counter to the next tray where the pot, the wooden spoon and the strainer will wait for the next task.

Boiling and draining

1. The learner will use both hands to locate the tray in front of him, containing the pot, the wooden spoon, the strainer and the bowl with the carrots.
2. Then, the learner will center himself in front of the stove top, using the oven door handle to center himself.
3. Then learner will extend his dominant arm at shoulder height, in front of him, above the stove top to make a safety check by sweeping from left to right to verify that nothing is on the stove top and that it is not hot as well.
4. Then, the learner will go back in front of the tray, and use both hands to locate the pot.
5. The learner will grab the pot by its handle with his non-dominant hand, and will use his dominant hand to trail the kitchen counter to the sink.
6. The learner will use his dominant hand to trail the sink toward the back and locate the faucet.
7. The learner will bring his dominant hand to the front of the faucet. Then with his non-dominant hand, he will bring the pot in contact with the faucet.
8. Then, the dominant hand, will help guide the pot to be placed under the water. Even under the faucet, the pot will stay in constant contact with the faucet.
9. The learner will trail back the faucet to open the water with the dominant hand. Then, the learner will place his index finger of the dominant hand inside the pot, to the side, to measure the level of water in it.
10. When there will be enough water in the pot, about 4 centimetres or a curly index from the top, the learner will use his dominant hand to close the water.
11. Then, always with his dominant hand, the learner will trail the kitchen counter back to the stove top.
12. As the burner are cold, the learner will use his dominant hand to locate the front right burner of the stove top, and place the pot on it.
13. Then, the learner will use both hands to center the pot on the burner, and make sure that the handle of the pot is at 9 o'clock.
14. The learner will use his dominant hand to trail the stove top toward the back, but on the kitchen counter side not the stove top side, to locate the burner knob on the exterior side.
15. The learner will turn the knob clockwise, placing it at 6 o'clock, on medium heat.
16. Once the water will start to boil, the learner will hear boiling sound, and feel steam.
17. The learner will locate the wooden spoon on the tray with his dominant hand, grab it, and hold it vertically. He will turn with it around the pot to locate the handle, then grab the handle of the pot with his non-dominant hand.
18. The learner will put back the wooden spoon on the tray, and with his dominant hand locate the bowl of carrots.
19. The learner will grab the bowl of carrots and bring it toward the pot. The learner will put the bowl of carrots in contact with the rim of the pot, then slowly tilt the bowl to make the carrots fall into the pot.
20. Then, the learner will put back the bowl on the tray, and with his dominant hand locate and grab the wooden spoon.
21. With the non-dominant hand still on the pot handle, the learner will hold the wooden spoon vertically with the larger part facing down. The learner will bring the

- wooden spoon around the pot, in contact with the pot and the burner, to recenter the pot on the burner.
22. The learner will put back the wooden spoon on the tray.
 23. Then, the learner will use both hands to locate the timer and set a 10 minutes timer.
 24. While boiling, the learner will use both hands to locate the strainer on the tray. The learner will grab the strainer with his non-dominant hand.
 25. With his dominant hand, the learner will trial the kitchen counter to the sink, and place the strainer into the sink.
 26. Then, the learner will use either of his hands to trial the kitchen counter back to the stove top, locate the oven door handle to recenter himself in front of the stove top, and wait for the timer to end.
 27. Once the carrots will be boiled, the learner will trial the stove top on the kitchen counter side toward the back, with his dominant hand, to turn off the burner. The learner will turn the knob counter clockwise to place it at 12 o'clock. A click from the knob will confirm that the burner turned off.
 28. The learner will locate on the tray, side of the stove top, the oven mitts. He will grab them and put them on.
 29. The learner will locate on the tray the wooden spoon, he will grab it with his non-dominant hand, vertically, the larger side facing down. He will bring it toward the pot and turn around to locate the handle of the pot.
 30. Then, the learner will grab the handle of the pot with his dominant hand. He will put back the wooden spoon on the tray, and use his non-dominant hand to trial the kitchen counter to the sink.
 31. Then, the learner will locate and grab the handle of the strainer placed in the sink, with his non-dominant hand.
 32. The learner will bring the side of the pot in constant contact with the rim of the strainer. He will tilt the pot slowly to pour the water and the carrots from the pot into the strainer.
 33. After draining the carrots, the learner will remove the strainer from the sink, place the pot in the sink, and put the strainer in the pot.
 34. Then, then learner will remove the oven mitts.
 35. The learner will use either of his hands to trial the kitchen counter back to the tray, locate and grab the bowl with his dominant hand, and trial the kitchen counter back to the sink with his non-dominant hand.
 36. Then, the learner will locate and grab the handle of the strainer in the sink with his non-dominant hand. He will put the side of the strainer in constant contact with the rim of the bowl, then tilt slowly the strainer to transfer the carrots from the strainer into the bowl.

6. Adaptation or modification of task analysis

For the task of peeling, if the learner prefers, instead of cutting all the ends of the carrots, then taking back all the carrots, he could cut the ends then do the peeling at the same time for each carrot. However, it adds manipulations steps, and putting down and taking back the knife at multiple times during the task would increase the risk of safety issue. It would be probably safer to perform all the steps with the knife at once.

Also, if the learner prefers, it will be possible to cut the ends of the carrots during the slicing task performance. However, it would have had some difficulties for the learner to distinguish the end parts from the other parts. For safety a plastic knife or a serrated knife can also be used.

For the slicing task performance, the learner will use a plastic knife or a serrated knife if it feels easier for him. Other kinds of easy slicing knife are also available. Also, the learner will prefer to use a low vision reversible cutting board to have a better contrast with the carrots, or use a cutting board with chute for easily accessing the cut pieces.

For increasing safety with the knife, when approaching the end of the carrots, the learner could use a fork to hold the piece in place, and cut around the fork with the knife. Also, the learner may want to cut all the carrots before placing the pieces into the bowl, however, if too many, the cutting board may become cluttered, and some pieces may fall and the learner may not be able to find them. It is easier to do one carrot by one carrot, and to make sure the learner won't forget to grab a piece, he may count them every time he is cutting a piece.

Finally, to drain the carrots, the learner may use a pot with a cover that clips to it and has a drain capacity. I had a set of pots like that a few years ago, but was not able to find them again. Also, if the pot with the water and the carrots is too heavy to carry, especially for older people, a large plastic spoon with holes on it can be used to drain the carrots above the pot, and then transfer them into a plate or bowl that would be placed next to the pot.

References

- Duffy, M. A. (n.d.). *Adaptive Slicing*.
- Duffy, M. A. (n.d.). *Boiling and Draining*.
- Duffy, M. A. (n.d.). *Techniques for Peeling*.
- Duffy, M. A. (n.d.). *Using a Knife to Slice*.