

Toothbrushing

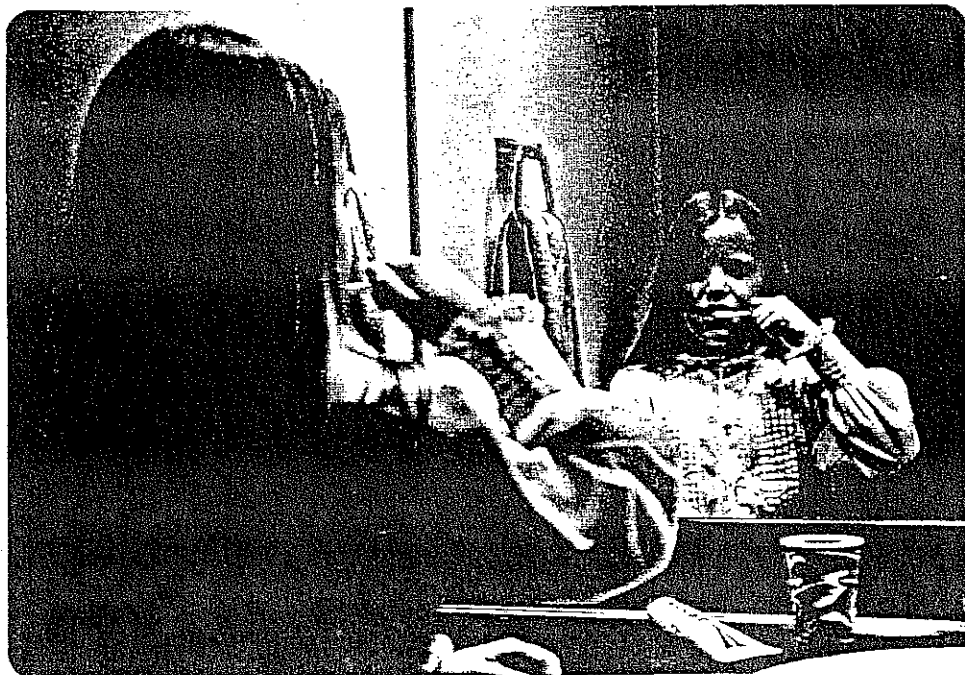
DAILY LIVING SKILLS

PROJECT
MORE

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Special Education Dept.*



Toothbrushing



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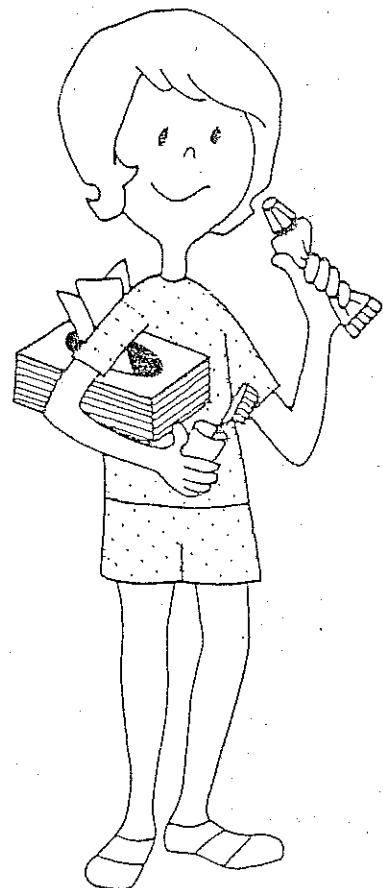
About the Toothbrushing Program

Proper dental care contributes to a person's general good health and appearance. Most people brush their teeth at least once every day as a natural part of their personal hygiene. This daily brushing should be accompanied by regular dental checkups.

Most people learn how to brush their teeth by imitating a parent or sibling, with a few wise words from the family dentist. But mentally retarded persons need additional help to learn how to brush their teeth.

The **Project MORE Toothbrushing** program gives you a simple procedure to teach mentally retarded students how to brush their teeth. Your teaching will be most successful when you follow the instructions exactly as they are written. The program outlines how to teach the behaviors which make up toothbrushing. These behaviors are called "steps" in the text.

Basic, detailed information about the teaching strategy, reinforcement, and data collection is contained in **How To Do MORE, Project MORE's** guide to all daily-living skill programs. Summaries of these subjects are included in this program. In order to do justice to your student, to the program, and to yourself as a trainer, you should be thoroughly familiar with both **How To Do MORE** and this book before you begin to teach the **Toothbrushing** program.



Selecting Students

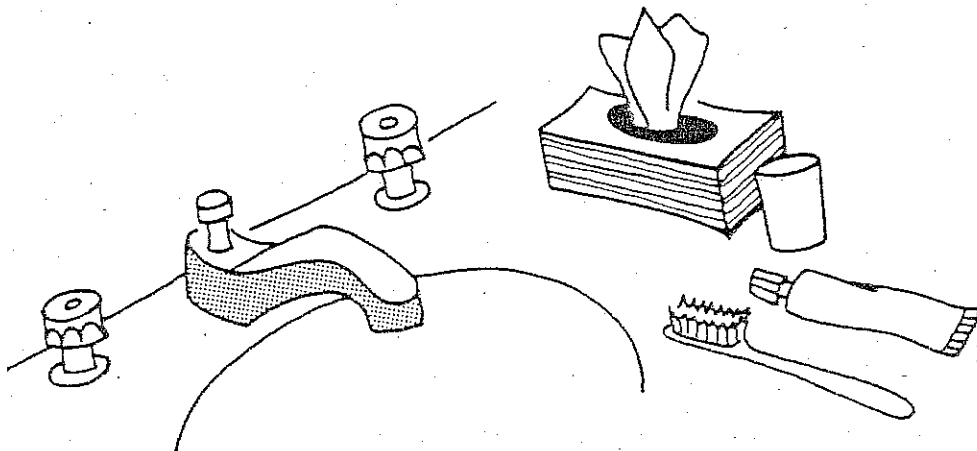
This program is designed to be used with persons who are moderately to severely retarded. Such labeling, however, does not directly indicate a student's ability to benefit from the **Toothbrushing** program. A "severely retarded" student may be able to learn the steps in the program as easily and rapidly as a "moderately retarded" student.

In general, for a student to participate in the **Toothbrushing** program, she/he should have sufficient skill in using his/her hands to enable him/her to open a tube of toothpaste and to hold a toothbrush. A student should also be capable of understanding simple directions and should exhibit no behavior problems which will seriously interfere with the training sessions.

The following are descriptions of four students who successfully participated in the **Toothbrushing** program during **Project MORE** testing. These students are no more or no less "typical" than your own students. This listing may provide some information you can consider as you select your students.

1. The first student was eleven years old. His medical diagnosis indicated cerebral palsy, epilepsy, mild hydrocephalus, and some spasticity of the arms and legs. His IQ was 51 as measured by a standardized intelligence test. This student acquired all of the behaviors in the **Toothbrushing** program by the nineteenth training session.
2. The second student was a sixteen-year-old moderately retarded girl with an IQ of 42. She was diagnosed as having Down's syndrome with some hearing, vision, and speech impairments. The student acquired all of the behaviors in the **Toothbrushing** program in eighteen training sessions.
3. The third student, a thirteen-year-old boy, had an IQ of 38. His medical diagnosis indicated anoxemia and injuries at birth. He acquired all of the toothbrushing behaviors by the twenty-ninth training session.
4. The fourth student was a twelve-year-old, moderately retarded boy with an IQ of 46. Medical records indicated that he had mental retardation associated with unknown prenatal influence, secondary cranial anomaly, and a controlled convulsive disorder. The student mastered all of the required toothbrushing behaviors by his twenty-second training session.

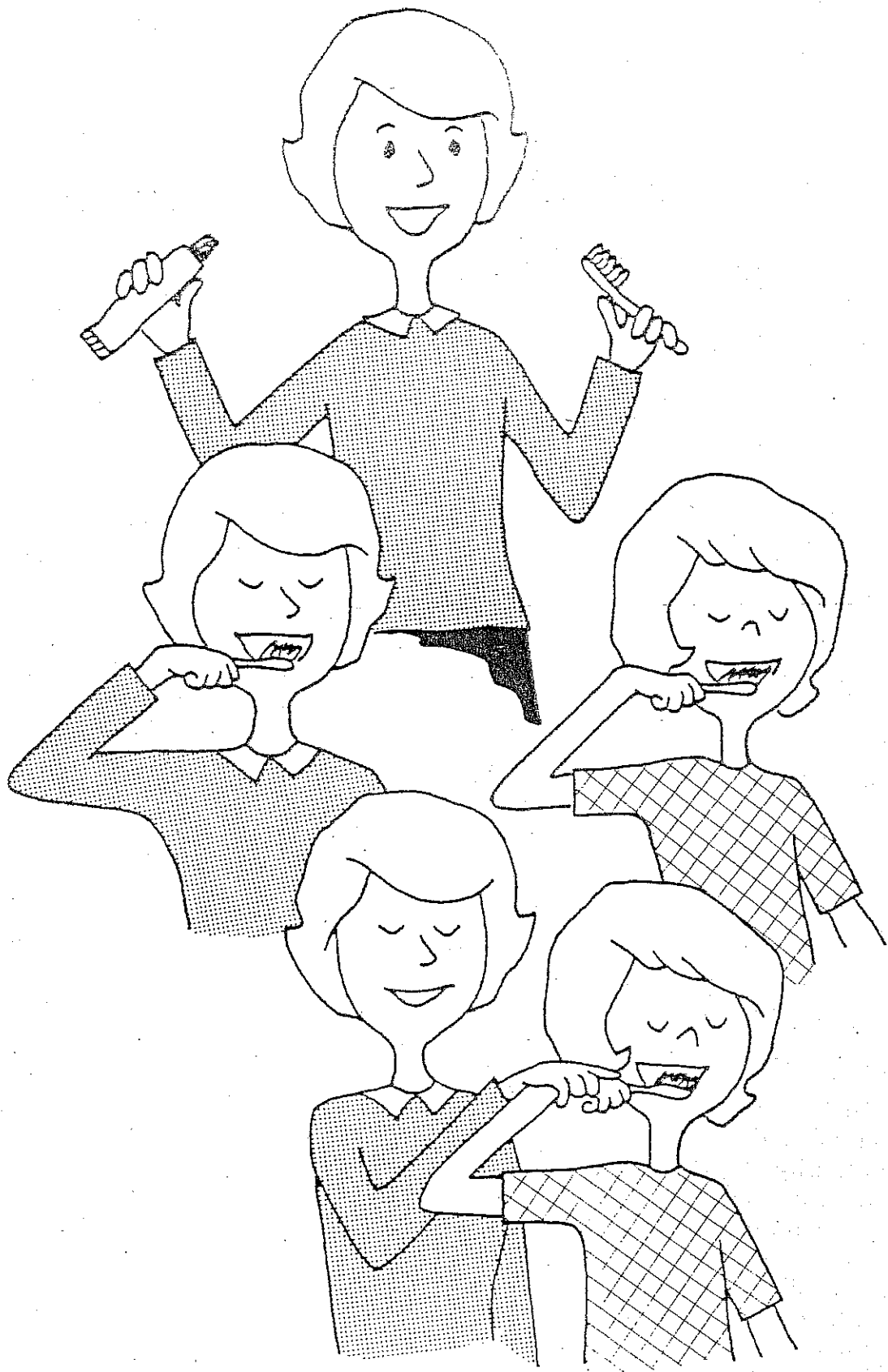
Supplies



The supplies required for the **Toothbrushing** program are listed below. All of the necessary supplies may be purchased at a drug, department, or discount store.

The supplies needed for each training session include a toothbrush, tube of toothpaste, a disposable cup, and facial tissues or a hand towel. When purchasing a toothbrush, select one which will fit your student. A seven-year-old student, for example, requires a much smaller toothbrush than a teenager or adult. A too-large toothbrush may negatively affect your training.

Training sessions should be held in a bathroom or kitchen where a sink with running water is available. Preferably, a mirror should be located above the sink so the student can watch as she/he brushes his/her teeth. All of the supplies required for the **Toothbrushing** program should be placed on or near the sink, within easy reach of the student.



The Teaching Strategy

Four levels of assistance are used by the trainer in **Project MORE** programs. It is essential for you to proceed systematically through all levels of assistance if your student does not perform a step correctly. These levels of assistance are thoroughly presented in **How To Do MORE**, but here is a quick review.

No Help—first provide your student with the opportunity to perform the step without assistance. If your student does not perform a step correctly after approximately five seconds at the **No Help** level, give the next level of assistance, **Verbal Help**.

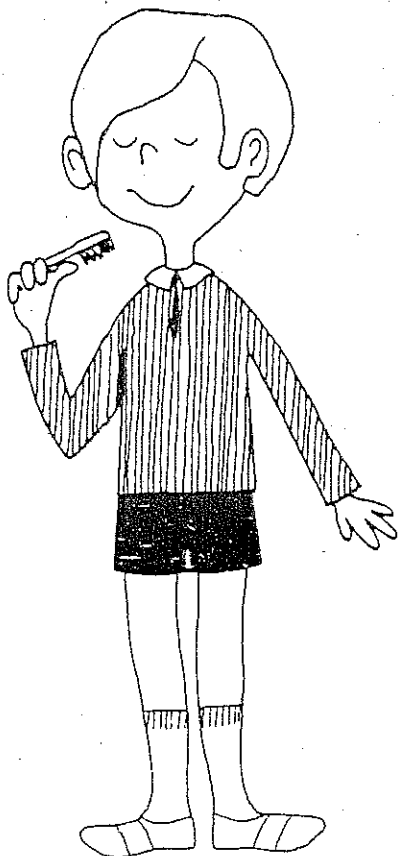
Verbal Help—give your student a reminder for the step. (It is written above the definition of the behavior for every step.) If your student performs the step correctly, go to the next step and wait for your student to perform the step with **No Help**. If, after **Verbal Help**, your student does not perform the step correctly or fails to perform the step after a ten-second wait, move to the next level of assistance, **Demonstration**.

Demonstration—show your student how to perform the step as you tell him/her what you are doing. If the student performs the step correctly, go to the next step and again provide **No Help**. If, after the **Demonstration**, the student does not perform the step correctly or fails to perform the step after a ten-second wait, give the next level of assistance, **Physical Help**.

Physical Help—as you tell your student how to perform the step, physically assist the student by guiding his/her hands. If your student performs the step correctly, go to the next step and again provide **No Help**. If the student is unable to perform the step correctly after being given **Physical Help**, do not give the student another opportunity to perform the step again until your next training session. Instead proceed with the training program by giving the student the opportunity to perform the next step with **No Help**.

An objective of all **Project MORE** programs is to fade the trainer's assistance until the student is able to perform all the steps independently. When the student is able to do all of the steps with **No Help**, the cue for performing each step will be the preceding step.

Reinforcing a Student



As you are teaching your student how to brush his/her teeth, you must reinforce, or reward, him/her after each correct performance. You will find complete information on reinforcement in **How To Do MORE**. There are three important things to remember about reinforcement:

1. Reinforcement must **immediately** follow the correct response,
2. You must use a reinforcer which is effective for your student, and
3. You must reward your student when she/he performs correctly regardless of the level of assistance.

Although either social or tangible reinforcement may be used, **Project MORE** recommends that you use social reinforcement since it is the type of reinforcement which the student will find in the community. Punishment is not recommended.

The Training Session

Training sessions for the **Toothbrushing** program should last twenty to thirty minutes, although the first few training sessions may take a bit longer. Training sessions should be held daily.

The number of training sessions it will take your student to learn how to brush his/her teeth adequately will depend on his/her competency as a student and your effectiveness as a teacher. The descriptions listed in the section titled "Selecting Students" will tell how long it took four students to learn how to brush their teeth during **Project MORE** testing.

Be careful about the time of day you select for your training sessions. For instance, if you schedule an early morning training session and your student has just brushed his/her teeth, training may be adversely affected. The student may not understand why she/he should brush his/her teeth twice in such a short period of time. You might, for example, consider scheduling the training session right after lunch when the student would have a good reason for brushing his/her teeth.

Before you begin to teach the steps of the **Toothbrushing** program, you will give your student a pretest to determine how well she/he can do prior to training. Begin the pretest by giving your student an initial instruction. This will introduce the student to the training task. Tell your student,

Here is everything you need to brush your teeth. I want you to brush your teeth by yourself. Do the very best you can.

Give the student the same instruction as you begin each training session and before the posttest. The posttest is administered after training is completed.

Measuring a Student's Performance

Measuring the success of your training sessions by collecting data is relatively simple but very important. **How To Do MORE** fully explains the importance of keeping accurate and up-to-date records of your student's performance.

You received two pads of data-keeping materials with the **Toothbrushing** program. The data sheet lists all of the steps in the program. The graph sheet will be used to chart your student's performance.

A sample data sheet on the opposite page shows you how the data sheet should be filled out. The four levels of assistance are represented by the letters **A, B, C,** and **D**, as indicated at the top of the data sheet. The letters are used for convenience in recording your student's progress and should not be interpreted as a grading system. The trainer recorded an **A** by the step when the student performed with *No Help*, a **B** when the student performed with *Verbal Help*, a **C** when the student performed after a *Demonstration*, a **D** when the student performed after *Physical Help*, and an **X** when the student could not perform the step after receiving all levels of assistance.

During the pretest and posttest the student was required to perform on his own with *No Help* from the trainer. Therefore, only **A's** are recorded under the column labeled pretest and posttest. This student was only able to perform four steps correctly during the pretest.

When the student was able to perform a step correctly after receiving *Verbal Help*, the trainer marked a **B** in the column next to that step. During the first training session, for example, the student performed Steps 2, 6, and 11, after being given *Verbal Help*.

During the second training session, the student needed a *Demonstration* on Steps 13 and 14 before he performed the steps correctly. The trainer placed a **C** next to those two steps in the column for the second training session.

The student successfully completed Steps 5 and 8 during the third training session after receiving *Physical Help*. His trainer put

TOOTHBRUSHING PROGRAM DATA SHEET

Student Jeff Johnson
 Trainer Mrs. Hibel

A = No Help
 B = Verbal Help
 C = Demonstration
 D = Physical Help
 X = Step not completed

	Pretest 6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	6/20	6/21	6/22	6/23	6/24	6/25	6/26	6/27	6/28	6/29	6/30	Posttest 6/30	
1. Pick up your toothbrush	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
2. Wet your toothbrush	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
3. Take the cap off the toothpaste	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
4. Put the toothpaste on your brush	C	C	C	B	B	B	B	B	B	B	A	B	A	A	A	A	A	A	A	A	A	
5. Put the cap back on the toothpaste	X	X	D	C	C	B	B	B	B	B	A	A	A	A	A	A	A	A	A	A	A	
6. Brush the outside surfaces of your teeth	B	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
7. Brush the biting surfaces of your teeth	C	D	C	C	C	C	C	C	B	B	B	A	A	A	A	A	A	A	A	A	A	
8. Brush the inside surfaces of your teeth	X	D	D	D	D	C	C	B	B	B	B	B	B	A	A	A	A	A	A	A	A	
9. Fill the cup with water	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
10. Rinse the toothpaste from your mouth	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
11. Wipe your mouth	B	B	B	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
12. Rinse your toothbrush	C	B	C	B	B	B	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A	
13. Rinse the sink	C	C	B	B	B	B	B	B	B	B	B	B	A	B	A	A	A	A	A	A	A	
14. Put your equipment away	C	C	B	B	B	B	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	
15. Throw the paper cup and tissue away	C	B	B	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	

a D in the column by those two steps. The same two steps had proved too difficult for the student during the first training session. He was not able to do either step, even when his trainer gave him Physical Help, then gave him the opportunity to perform the steps by himself. The trainer indicated this on the data sheet by marking an X by Steps 5 and 8 of the first training session.

The criterion for successful completion of the Toothbrushing program is fourteen of the fifteen steps performed correctly with No Help from the trainer. When your student is able to perform fourteen of the fifteen steps with No Help for three successive days, she/he is ready for a posttest.

This student was able to perform all of the steps correctly, surpassing the minimum criterion level, on the fourteenth, fifteenth, and sixteenth days of his training sessions, so his trainer administered a posttest. During the posttest the student performed all of the steps correctly with No Help from the trainer. If the student had been unable to perform one or more steps during the posttest, the trainer would have left the column next to that step blank.

If a student is successful on the posttest, performing at least fourteen of the steps correctly without help, she/he may be dismissed from training. If she/he does not meet this level, you may wish to continue training for several more days, administering the posttest again at the end of that time.

Graphing The Data

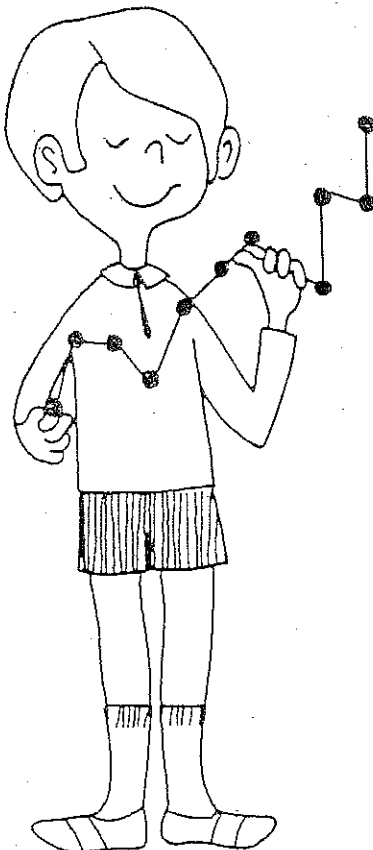
Each day, after completing the training session, you should graph your student's performance on the graph sheet which accompanies this program. This will give you an idea of how well your student is learning to brush his/her teeth. A sample graph sheet on the opposite page will give you an idea of how the graph sheet should be filled out. The arrow on the graph sheet indicates the criterion level for completing training.

After each training session the trainer marked the number of steps the student performed correctly with *No Help*. This student was only able to perform four steps correctly with *No Help* during the pretest. His progress was steady and he performed more than half of the steps correctly with *No Help* by the seventh training session.

Using this graph, the trainer was able to tell how her student was progressing in the training sessions. When the student met the criterion level during the fourteenth, fifteenth, and sixteenth training sessions, the trainer knew that the student was ready to be given a posttest.

If you want more sensitive feedback on your student's progress, you can graph all levels of assistance by assigning values to the different levels ($A = 3$, $B = 2$, $C = 1$, $D = 0$, $X = 0$) and totaling the number of points per session. By plotting this total number on the graph, you can get a complete picture of an individual student's progress.

You will have to modify your graph sheets since each step in the program will now be worth three points. This will allow a student to earn a possible forty-five points each session. The horizontal lines on the graph sheet must be renumbered from zero to forty-five in multiples of three, i.e., 0, 3, 6, 9, etc.

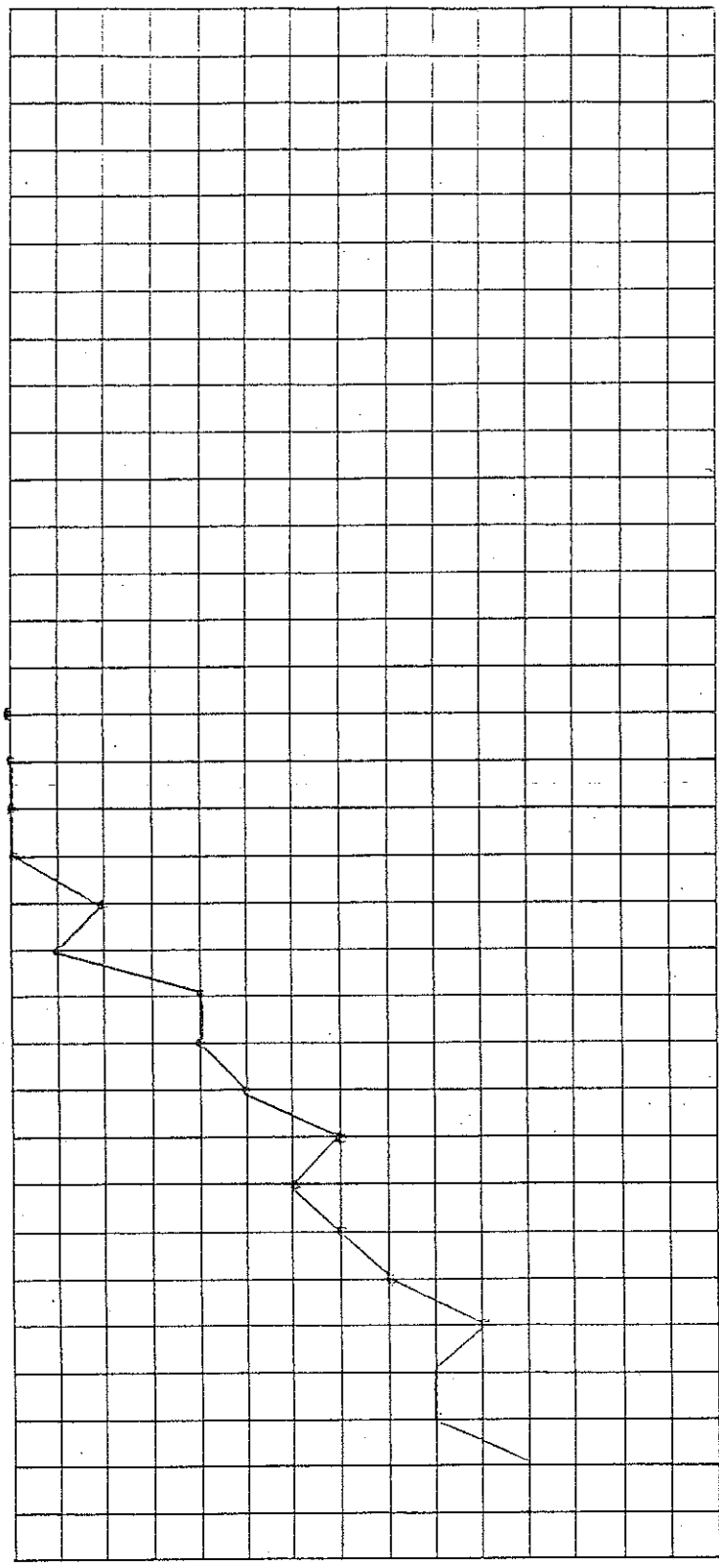


TOOTHBRUSHING PROGRAM GRAPH SHEET

Student Jeff Johnson

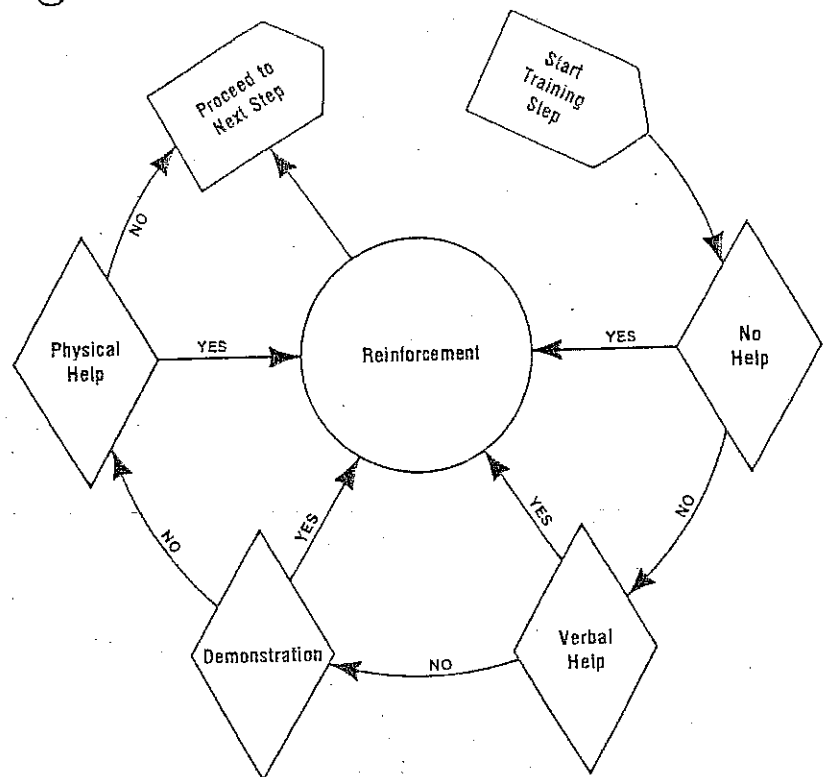
Trainer Ms. Hilary

Number of steps performed correctly with No Help (A)



Pre-test 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

Teaching Strategy Diagram



Above is a diagram of the four levels of assistance in the **Project MORE** teaching strategy. You may find this diagram helpful in reviewing these levels of assistance. On the opposite page is a summary list of the steps in the **Toothbrushing** program. Use these two pages as a guide during your training sessions.

The definitions of the steps in the program are found on the remaining pages. The definitions state the correct manner in which to perform each step. The title of the step is the **Verbal Help** you will give your student if it is necessary. The illustrations for each step further clarify the validated method of performing the step.

When you have read all of **How To Do MORE** and studied every page of this program, you are ready to begin to teach the **Toothbrushing** program. Review the definitions of the steps in the program whenever necessary.



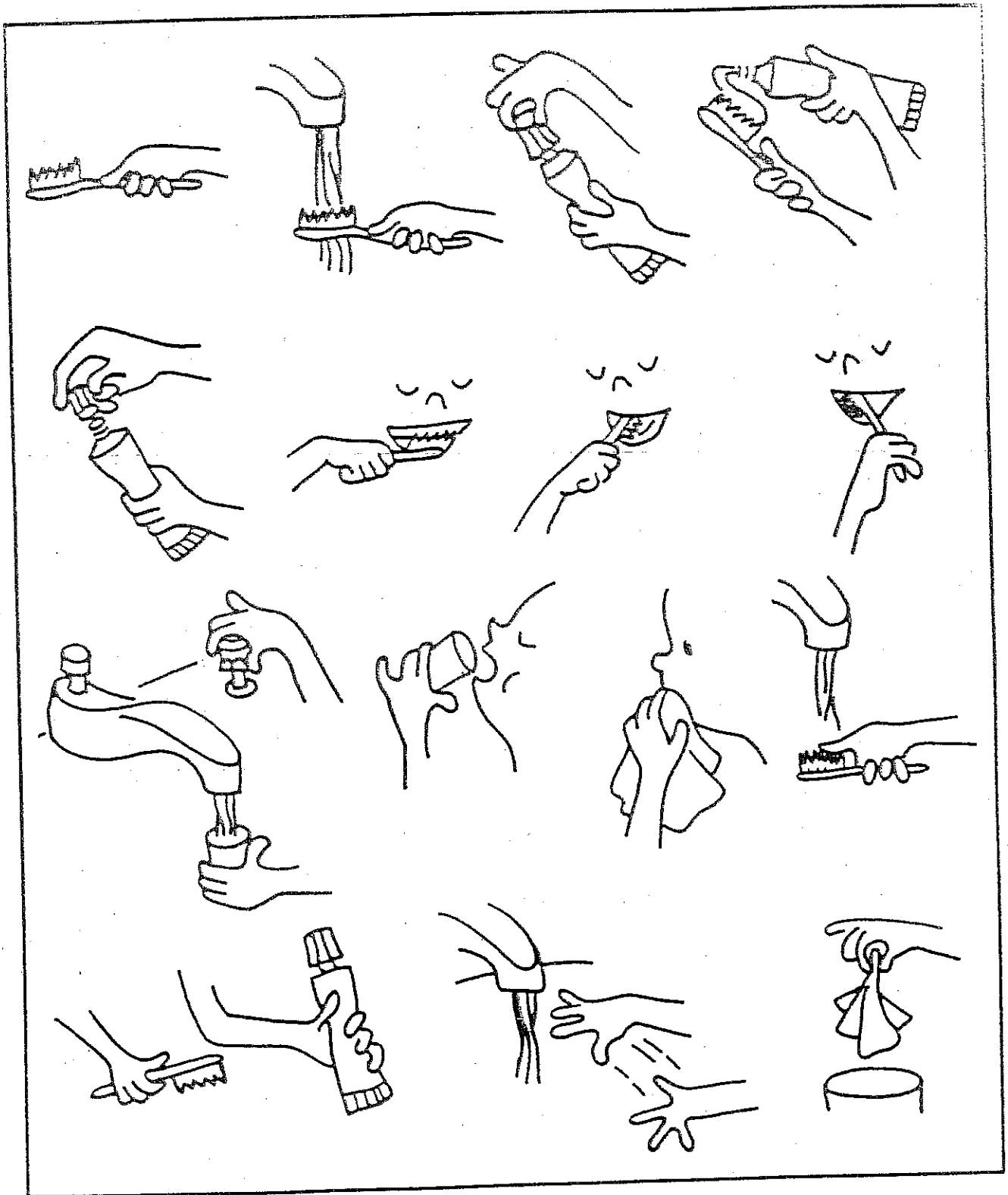
KEY

Can the student perform the training step correctly at the cue level specified in the diamond? If yes — follow the arrow to "Reinforcement" and "Next Step." If no — follow the arrow to the next cue level.

The Steps

1. Pick Up Your Toothbrush
2. Wet Your Toothbrush
3. Take the Cap off the Toothpaste
4. Put the Toothpaste on Your Brush
5. Put the Cap Back on the Toothpaste
6. Brush the Outside Surfaces of Your Teeth
7. Brush the Biting Surfaces of Your Teeth
8. Brush the Inside Surfaces of Your Teeth
9. Fill the Cup with Water
10. Rinse the Toothpaste from Your Mouth
11. Wipe Your Mouth
12. Rinse Your Toothbrush
13. Rinse the Sink
14. Put Your Equipment Away
15. Throw the Paper Cup and Tissue Away

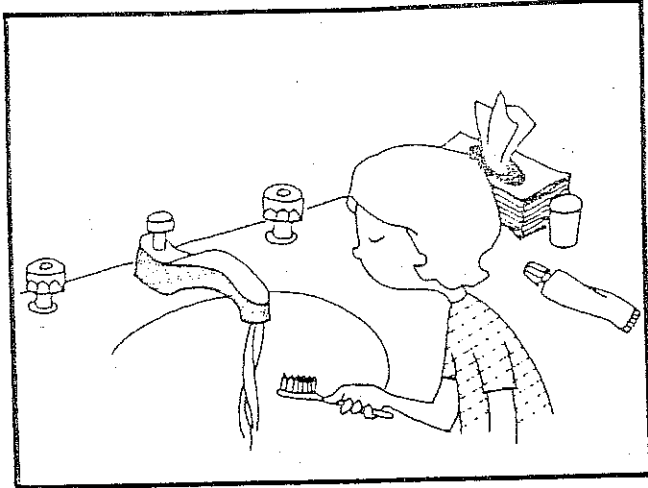




The Steps

Step 1

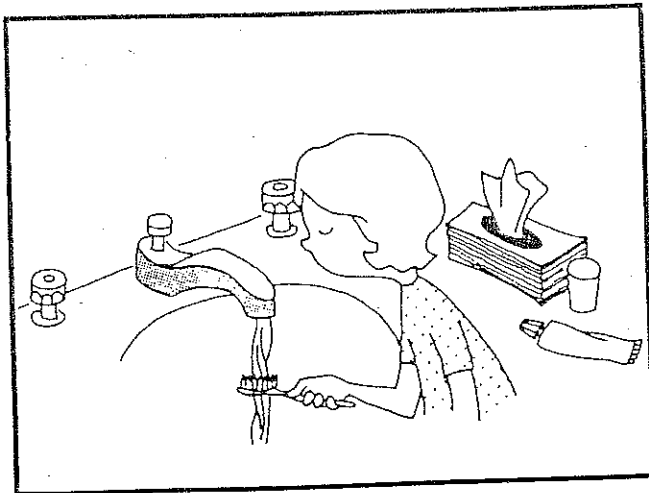
Pick Up Your Toothbrush



The student starts each session by first turning on the water and then picking up the toothbrush by its handle.

Step 2

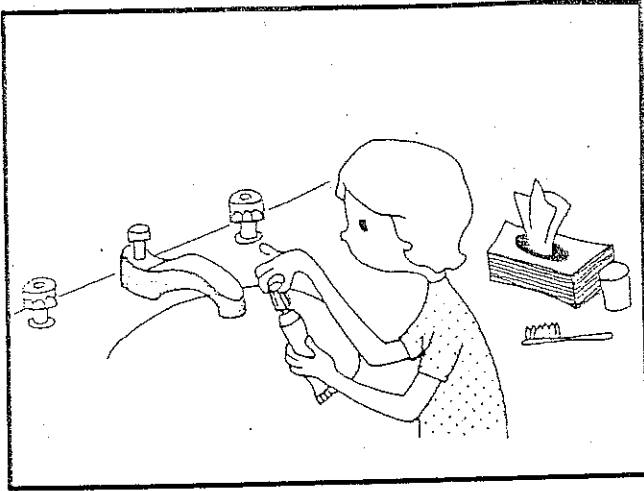
Wet Your Toothbrush



The student continues to hold the toothbrush, placing the bristles under the running water for at least five seconds. Then the student turns off the running water and lays the toothbrush down.

Step 3

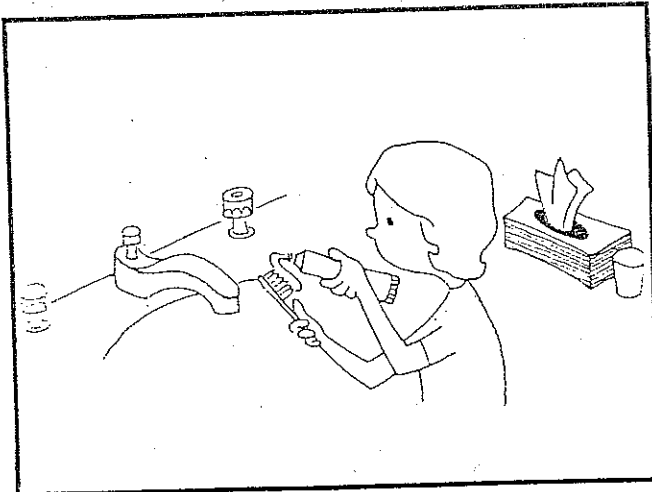
Take the Cap off the Toothpaste



The student places the tube of toothpaste in his/her least preferred hand, unscrews the cap with the thumb and index finger of his/her preferred hand, and sets the cap on the sink.

Step 4

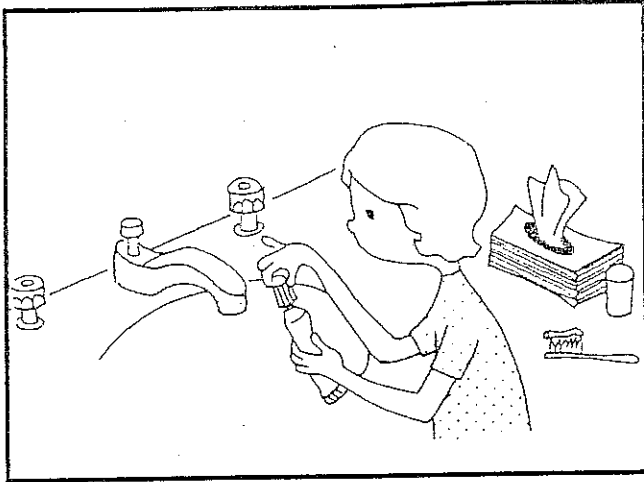
Put the Toothpaste on Your Brush



The student picks up the toothbrush by its handle, holds the back part of the bristles against the opening of the toothpaste tube, squeezes the tube, moves the tube toward the front bristles as toothpaste flows out on top of the bristles, and lays the toothbrush on the sink with the bristles up.

Step 5

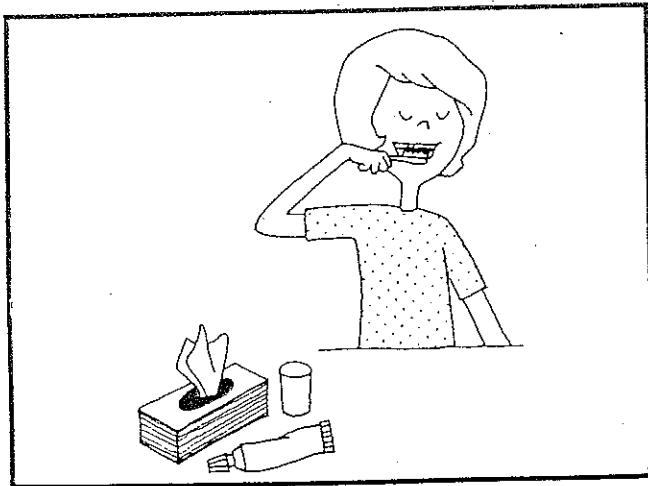
Put the Cap Back on the Toothpaste



The student picks up the toothpaste cap with the thumb and index finger of his/her preferred hand, screws the cap on the toothpaste tube which she/he is holding in his/her least preferred hand, lays the tube of toothpaste down, and picks up the toothbrush by its handle with his/her preferred hand.

Step 6

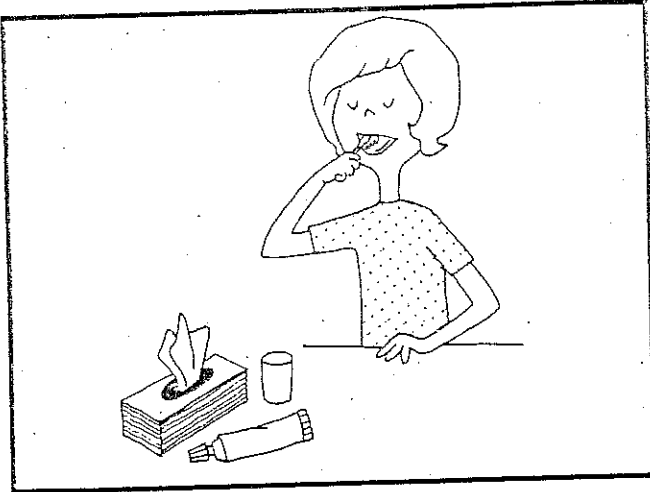
Brush the Outside Surfaces of Your Teeth



The student brushes the outside surfaces of his/her upper and lower teeth on both sides and in the center of the mouth, using either an up and down or back and forth motion, for at least thirty seconds.

Step 7

Brush the Biting Surfaces of Your Teeth



The student brushes the biting surfaces of his/her upper and lower teeth on both sides and in the center of the mouth, using a back and forth motion, for at least thirty seconds.

Step 8

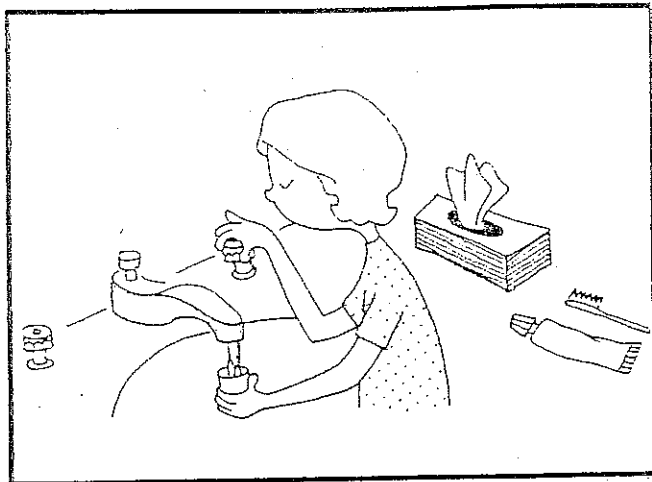
Brush the Inside Surfaces of Your Teeth



The student brushes the inside surfaces of his/her upper and lower teeth on both sides and in the center of the mouth, using a back and forth motion, for at least thirty seconds.

Step 9

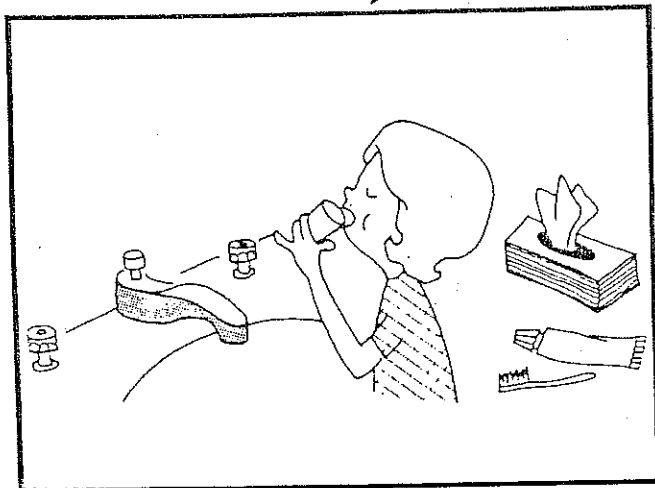
Fill the Cup with Water



The student lays the toothbrush down, picks up a cup, places it under the faucet, turns on the cold water, fills the cup, and turns off the cold water.

Step 10

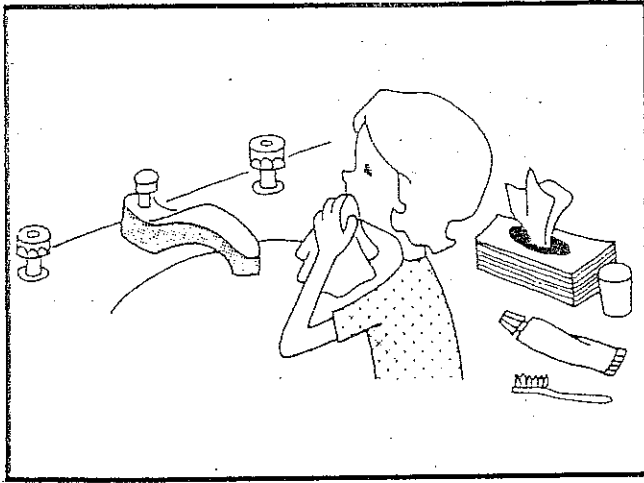
Rinse the Toothpaste from Your Mouth



The student spits out any excess toothpaste foam, takes a sip of water, holds it in his/her mouth, swishes it around in the mouth, and spits it out. If any toothpaste foam is still present in the mouth, this procedure should be repeated.

Step 11

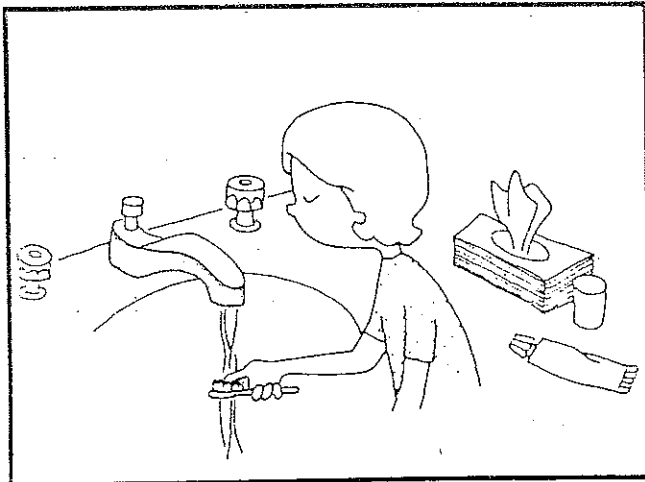
Wipe Your Mouth



The student pulls a tissue from the container (or picks up a hand towel) and dries his/her mouth.

Step 12

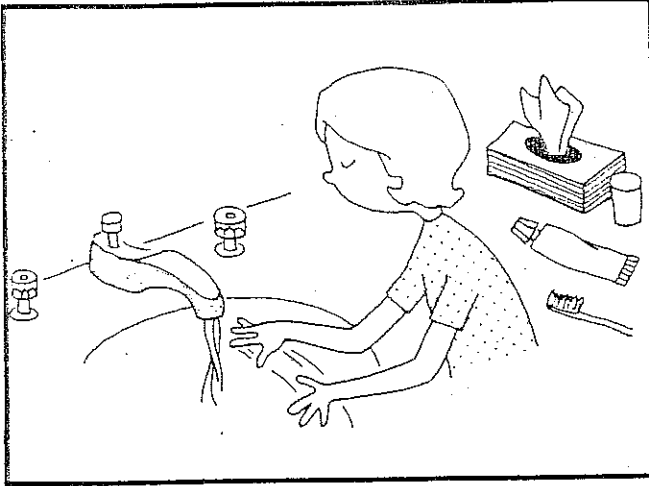
Rinse Your Toothbrush



The student picks up his/her toothbrush by its handle, turns on the water, and places the bristles under the running water until the bristles are free of toothpaste (any toothpaste not removed by the water may be dislodged by drawing the fingers across the bristles), turns off the water, and lays the toothbrush down.

Step 13

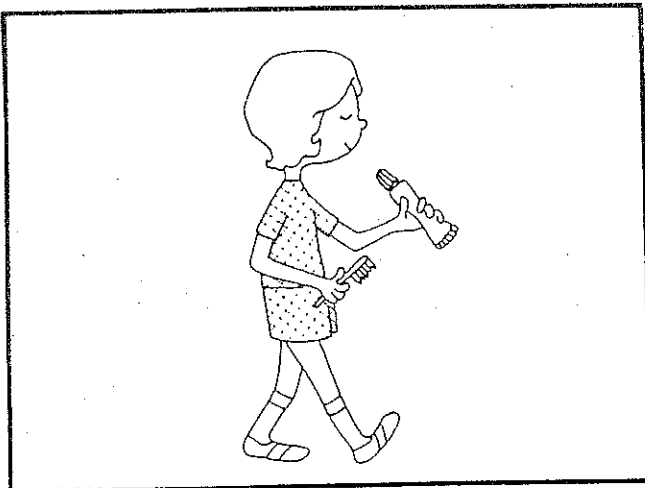
Rinse the Sink



The student turns on the water and rubs his/her hand around the inside of the sink to wash any residue of toothpaste or toothpaste foam down the drain. She/he then turns off the water, and dries his/her hands on a tissue or hand towel.

Step 14

Put Your Equipment Away



The student puts the toothpaste and toothbrush in the proper storage place. (If a glass and hand towel are used, these should also be returned to the storage place.)

Throw the Paper Cup and Tissue Away



Any used paper cups and tissues should be placed in a wastebasket.