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**Final Report**

**Individualized 10-Week Running Training Program**

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## Instructor Guide

**Instructional Goal:** The learner will design an individualized 10-week running training program that will enable him/her to train for a 5K road race. Components will include: a weekly run/walk schedule and information regarding choosing days of the week, time of day and place to run, needed gear, and safety considerations.

**Terminal Objective:** In a classroom setting, the learner will design an individualized 10-week running training program by: identifying appropriate running gear, stating the components of a training run, and when provided a blank calendar and weekly run/walk schedule, by entering training start date, date, time and place of training runs, and target race date on the calendar.

**Notes to Instructor:** The learners are a self-referred group of men and women, ages 16 and older, with little or no previous experience in running for fitness, but who are desirous of exploring running as a means of attaining/maintaining physical fitness. The content is to be delivered via the traditional instructor-led model. Learners will have the opportunity to work in pairs or in small groups during some activities. Individual desks should therefore be arranged into “tables” of four to facilitate paired and small group activities. Invite learners to sit where they are comfortable. It is recommended that the instructor read carefully through the instructional manual and materials, and that he/she practice performing the featured running stretches multiple times prior to presenting the instruction.

**Instructor Materials:** The instructor should arrive wearing comfortable clothing that allows for movement (e.g. t-shirt, athletic pants) and running shoes in good condition (under 500 miles of wear). The instructor materials needed include: an instructor guide, an overhead projector, a whiteboard, dry erase markers, a water bottle, and a sport watch with a chronometer. The instructor manual includes the following documents, which are listed in the order in which they are to be presented to learners:

1. Resource list\*
2. Overhead 1: Which of the following can provide us with information regarding future 5K races?
3. List of upcoming 5K Races\*
4. A blank paper calendar
5. Overhead 2: “On the run” cartoon
6. Drawing of a female runner
7. Learner worksheet
8. Overhead 3: “Antique shoes” cartoon
9. Pictures and written descriptions of running stretches
10. The weekly run/walk schedule
11. Overhead 4: “Joggers vs. horses” cartoon

The overheads and learner resources referred to in this manual are presented at the end of the manual. It should be noted that some of the learner resources (those marked by an asterisk) must be updated as appropriate for the geographical area and time period in which training is conducted.

**Learner Materials:** Learner packets for 25 learners that include the following:

1. A learner guide
2. A resource list\*
3. List of upcoming 5K races\*
4. A blank calendar
5. Drawing of a female runner
6. A learner worksheet
7. Pictures and written descriptions of running stretches
8. The weekly run/walk schedule.

### Pre-instructional Activities

#### **Motivation:**

Welcome the learners to the class. Explain that the purpose of the class is for participants to design an individualized 10-week running training program that will enable them to train for a 5K road race of their choice. Mention that the distance of a 5K is 3.1 miles. Introduce yourself and the assistant trainer, explaining when you began running and under what circumstances. Share some of your running achievements and the positive feelings you have about running.

Introduce the female guest speaker who will share her personal experience in training for a 5K race. (Her presentation will include that she began training in middle age with no previous running experience and with exercise-induced asthma, that she now has almost ten years of experience in running and participating in races, and that she almost always finishes last among the women participants. She will share the positive impact running has had on her life, including improved health and self-esteem, as well as providing her with a social outlet and opportunities for volunteerism through her participation in a local running club. Finally, she will share that her running career began with participation in a beginning running program designed to lead to participation in a 5K race, such as the one presented during this instruction.) Thank the guest speaker for sharing her “running story”. Emphasize that despite the challenges the guest speaker faced in beginning and sustaining a running program, her perseverance in running has rewarded her with many valuable benefits, including some that were unanticipated (her enjoyment of volunteer opportunities through a running club, friendships she has made).

Explain to the learners that you will be leading them through a brief visualization exercise. Ask them to become as relaxed as they can in their chairs and to close their eyes. Read the following slowly, in a soft, soothing voice:

*“Imagine yourself arriving at the site of your first 5K race. You walk over to the area where others are gathering. You notice the runners around you getting ready for the race, retying their laces, stretching, drinking from water bottles, walking or jogging lightly to warm up. You hear their noisy chatter as they pass the time before the race begins, talking to acquaintances and strangers alike. Your fellow runners are a varied group, from young to elderly and of all sizes and shapes. As more runners arrive you begin your warm-up. In between gentle stretches, you sip from your water bottle, all the while aware of the activity around you and the race day excitement that begins to build. As the time draws nearer to race time runners begin to sort themselves by pace groups that are marked by race officials. You gravitate toward the pace group most comfortable for you based on your training. You smile and exchange a few words with those close to you. Your fellow runners are surprisingly friendly. The announcement is made that the race will begin in just a few minutes. You feel nervous, but remember that you have trained well over many weeks and are excited to meet this new challenge. The one-minute warning is given and runners begin to move up. You move with them, ready to run. The start gun goes off and you move. You start out slowly, careful to avoid others in close proximity. As the field opens up you hit your stride. The running is familiar and comfortable for you. You begin to notice your surroundings, including the spectators who are cheering for you and your fellow runners. They’re not cheering your performance; they’re cheering your participation. You’re out there doing it- running a 5K race. Before you know it you are at the half way point where you slow to grab a cup of water at the water station. Dropping the cup, you resume your pace, enjoying moving your body and being part of the herd of runners. You notice more people cheering along the racecourse. Soon a racecourse volunteer tells you that you are almost at the finish line. You’re surprised it could be so soon. Within a few minutes, the arc of balloons marking the finish line is within sight. You begin to hear the announcer calling out the names of those completing the race. Your excitement builds as you near the finish line. You even pick up the pace just because you can. You cross the line and hear cheering as your name is announced. A volunteer congratulates you and hands you a well-deserved bottle of water. You’ve just run your first 5K race.”*

Ask the learners to open their eyes and to try and recall themselves as children, experiencing the sheer joy of moving their bodies as they played. State that running can help them re-experience that same enjoyment of moving their bodies. Explain that running a 5K race is possible for each of them and that the training program they will participate in is designed to lead them toward that goal.

Briefly state some of the benefits that may be accrued from running. They include the following:

- It’s a good aerobic exercise for conditioning the heart and lungs.
- As is true of many forms of exercise, it is helpful in preventing various diseases.
- It can lower your blood pressure
- It is a good way to either lose weight or maintain a healthy weight. Running burns approximately 100 calories per mile, more than either biking or walking the same distance.

- It may prevent bone loss because it's a weight-bearing exercise
- It can increase your energy
- It can help you manage stress, anxiety, and in some cases even mild depression
- It doesn't require any particular athletic prowess or expertise; it's easy
- It can be done anywhere, inside or outside
- It can be a solitary or group activity
- It can be a good way to meet new people
- It doesn't require much in the way of equipment
- It's fun!

Refer the learners to their Resource List, where there are three websites listed that have more in-depth discussions of the benefits of running.

Ask learners to take a few moments to introduce themselves to their tablemates and to share their personal goals for beginning a running program.

### **Instructor Materials for Cluster 1 Performance Objectives**

<b>Cluster 1</b>	<b>Instruction</b>
<b>Subskill 1.2</b>	<b>Identify sources of race information</b>
<b>Subskill 1.1</b>	<b>Identify 3 potential 5K races</b>
<b>Main Step 1</b>	<b>Select target 5K race</b>
<b>Subskill 2.1</b>	<b>Identify week training begins</b>
<b>Main Step 2</b>	<b>Mark 1<sup>st</sup> day of training on calendar</b>

#### **Instruction in Subordinate Skill 1.2**

##### Content Presentation and Learner Guidance

Present the following lecture:

*“Many different 5K races are held throughout the year. How do we find out where they are? There are several good source of information about local 5K races available to us, including written publications and websites of running clubs in our area, local running gear stores, local community newspapers, and the weekend section of the local newspaper. Checking one or more of these sources will provide you with a wide array of races to consider participating in. The more choices you have, the more likely it will be that you will find a race that is convenient for you both in terms of your schedule and your geographic location. If you look at your Resource List, you will notice information about sources of information regarding 5K races.”*

After learners have had a minute or two to review the resource list, place the “Sources of Information” sheet (Overhead 1) up on the overhead. Ask learners to work with their tablemates as a group to identify those sources of information they would consult to find out information about upcoming 5K races. After learners have had a minute or two to

make their choices, restate the four sources of information previously mentioned that are good for learning about upcoming 5K races (written publications and websites of running clubs in our area, local running gear stores, local newspapers, and the weekend section of the local newspaper) and erase the distractor items included with the correct responses on the overhead.

### **Instruction in Main Step 1 and Subordinate Skill 1.1**

#### Content Presentation and Learner Guidance

Present the following lecture:

*“Not all 5K races are created alike. They vary in terms of their size, or the number of entrants. Big races that have more than a few hundred participants usually have more amenities, such as a larger number of Port-a-Johns, a greater variety of post-race snacks, and tokens given to those who complete the race. Some of the really large ones have live music along the course and various post-race activities for runners and their families. For runners who are competitive, there are often cash prizes. Smaller races are often more limited in the number and types of amenities provided. No matter what type you choose for your first race, though, it’s bound to be exciting and rewarding!”*

*“Races also differ in terms of the terrain on which they’re held. Some races are held on trails, which may mean they have an uneven surface. Some may be on concrete, which can be hard on your legs if you’re not accustomed to running on that surface. Many are held on asphalt. You can most often tell what the terrain will be from reading a description of the race you’re interested in. The setting of races also differs. In our area races are held in urban, suburban, and rural settings. (Adapt this statement as appropriate for your geographical area). Each setting has something unique to offer.”*

*“Races are held throughout the year, although you will find a greater variety to choose from in warmer weather. Most are on weekend days, but you will also find some offered during the week, usually during more seasonable weather. Some races are held in the evenings (mostly in the summer), but the majority have start times between 8 and 10 AM. Lastly, the cost of 5K races varies slightly, but most are between \$15 and \$30. The larger races are usually more expensive than the smaller ones. In most cases a portion of the fee collected for race entrance is donated to a charity, and that information is provided in the race description.”*

*“Think for a few minutes about the characteristics you will look for in choosing the race you want to run. Will it be near your home? In what season would you most like to find a race? Will it be a large noisy race with a party-like atmosphere or a smaller race in a rural setting?”*

Allow learners a few moments to consider these questions. Refer them to the List of Upcoming Races sheet in their packets. (This list is specific to a given geographic location. The information given to learners must be updated by the instructor with

specific 5K races in the geographic area of the learners.) Ask learners to look through the list, keeping in mind their personal schedules, geographic locations, and personal preferences. Request that they circle at least three races that they are interested in and that it would be possible for them to participate in. After several minutes, request a show of hands of learners who have identified three races they can participate in. Have the assistant trainer work with any individuals who have not identified three potential races by asking about their specific constraints and making suggestions about additional sources of information regarding 5k races if needed. Request that learners make a final choice of one of their three potential races.

Once learners have chosen their race, ask what races they have selected and as is feasible, encourage them to regroup themselves at tables with peers who have selected the same race. Explain that this may provide an ideal opportunity for them to make connections with others running the same race and possibly to support one another during their training and on race day. State that having a running partner can strengthen commitment to the training program.

### **Instruction in Main Step 2 and Subordinate Skill 2.1**

#### Content Presentation and Learner Guidance

Remind learners that the training program requires 12 weeks of training, and that to establish when training should begin, they will need to count back 12 weeks from the date of the race they have selected. Ask learners who have brought their personal calendar or PDA to take them out. For those learners who did not arrive with some sort of calendar, give out blank monthly calendars. Note that the monthly calendars included in your instructional materials are samples. You may need to obtain different calendars, depending upon the date of your training. Additional calendars may be downloaded free of charge from the following website: [www.printfree.com/Calendar-files/2009calendars/102009.html](http://www.printfree.com/Calendar-files/2009calendars/102009.html).

Direct the learners to note the date of their race on their calendars and to count backwards 12 weeks from that date to determine the first week of their training. Ask that they place some time of mark on the first day of that week. When it appears that this has been accomplished, orally confirm the start date of training for each of the races on the resource list.

## Instructor Materials for Cluster 2 Performance Objectives

Cluster 2	Instruction
Subskill 3.1.1	Define “rest/recovery”
Subskill 3.1	Schedule 4 running days per week
Subskill 3.2.1	Name 2 safety considerations of running in the early AM/in PM
Subskill 3.2	Select time of day to run
Subskill 3.3.1.1	Identify source of information re: running sites
Subskill 3.3.1	State 3 actions to decrease vulnerability in running in remote locations
Subskill 3.3	Choose a place to run
Subskill 3.4.2	Identify running accessories
Subskill 3.4.1	Identify clothing & footwear
Subskill 3.4	List running gear

### Pre-instructional Activity

#### **Introduction/Motivation/Linking to Previous Skills**

Review with the learners what they have accomplished thus far: they have chosen the race they will participate in and have identified the week they will begin their training programs. Explain that the next step is to plan out the training runs themselves, including the days of the week, time of day, and place they will run. They will also identify the gear they will need to run. Emphasize that the information and skills they gain in this next portion of the training will allow them to customize their training programs to fit their schedules and needs.

Put up Overhead 2: “On the run” cartoon

State that the time and effort learners now put into creating an individualized plan for themselves will enable them to run safely and effectively now and in the future... maybe even through their 90's!

#### **Instruction in Subordinate Skills 3.1.1 and 3.1**

Content Presentation and Learner Guidance

Present the following lecture:

*“In planning a training schedule there are several decisions to be made. The first we will make is when to run. The training schedule we will present requires that you commit to four training days per week. For many beginning runners it is very helpful to schedule training on the same four days each week, so that running becomes engrained in your weekly routine.”*

*“Whenever you begin a new exercise, sport, or physical activity it is normal to feel some muscle soreness or fatigue. You will most likely feel strain or soreness in your leg muscles, particularly at the beginning of the training program. Because running is a new activity for you, we want to approach training slowly and carefully to maximize your safety and minimize discomfort. One way we do that is to allow our muscles time to recover after a run, by scheduling days of rest in between training days. The term “rest/recovery” refers to the period of rest/recovery we leave ourselves in between runs in order to allow our muscles to recover and to avoid injury. When we schedule our four training days each week, we want to avoid scheduling more than two consecutive days in any given week.”*

Ask learners the following two questions, encouraging them to respond as a group:

*“What does ‘rest/recovery’ mean in relation to running?” (Scheduling days of rest in between training runs)*

*‘Why is it important to schedule days of rest in between training days?’ (To allow muscles time to recover and to avoid injury)*

Confirm the correct responses.

Ask learners to consider which four days of the week they plan to do their training runs. After a few minutes, ask them to share with a peer learner at their table the specific days they have chosen. Request that the learners check their partner’s selection of running days, ensuring that four days are selected and that no more than two training days are consecutive. Circulate around the room and provide corrective feedback as needed.

### **Instruction in Subordinate Skills 3.2.1 and 3.2**

Content Presentation and Learner Guidance

Present the following lecture:

*“Now that we’ve chosen the days we will train, we also need to choose the time of day we will run. Many runners choose to train either at the beginning of the day, before work or school or at the end of the day. These are often convenient times to schedule training runs, but there are several safety considerations that you must take into account if you choose to run early in the morning or at night. One is that when it is dark you may have limited ability to see the terrain clearly. You may not be as aware of danger. Also, the drivers of vehicles may not see you. Another factor to consider is that there are likely to be fewer vehicles or people out on the roads/trails, which increases your susceptibility to*

*being a victim of a crime. There are some precautions you can take, however, to increase your personal safety during early morning or late evening runs. One recommendation is to run with a cell phone. You should not run with a headset. This is true no matter when you run outdoors, but is critical if you run early in the morning or at night. Two ways you can increase your visibility to others is to wear a reflective vest and to wear an armband light. It is highly recommended that you keep in mind the risk factors associated with running in the early morning/at night when you choose the time of day to run.”*

Ask learners to take from their packet the Drawing of a female runner. Request that they add to the drawing safety risks of running early in the morning or at night that were just discussed. After a few minutes, ask the learners to exchange pictures with a peer learner at their table. Request that they make sure their partner’s picture contains the following risk factors: an object (i.e. tree, rock) in the path of the runner, a vehicle coming toward her, a headset, and another person wishing to harm the runner. Write the risk factors on the whiteboard.

After learners have received their own papers back from their peers, request that they add in tools that the runner can use to increase her personal safety under these early morning/late night conditions. After a few minutes, request that the learners exchange papers with a different peer learner at their table. Ask the learners to check that their partners’ picture contains the following tools to increase personal safety: cell phone, reflective vest, and arm band light. Write the tools on the whiteboard. Reiterate the risk factors and tools to increase safety.

### **Instruction in Subordinate Skills 3.3.1.1, 3.3.1, and 3.3**

#### Content Presentation and Learner Guidance

List the following on the whiteboard: treadmill, high school/college track, paths, trails (paved or unpaved), and canal tow path

Present the following lecture:

*“We are now at the point where we will need to select a place to run. There are multiple possibilities, each with their own advantages and disadvantages. For example, many people enjoy the convenience of running on a treadmill in their homes or at a gym or community fitness center. Treadmills are widely available and can be used at any time of the day or evening and in any type of weather. Since there are no personal safety concerns associated with running on a treadmill, it is possible to watch television or listen to music while exercising. Others find running on a treadmill to be tedious and prefer to run outdoors. There are many choices of outdoor locations; several are listed here (refer to whiteboard). It is extremely important to consider your personal safety and exercise great caution if you choose to run in a remote location, such as a trail or path. One strategy you can use to increase your personal safety should you choose to run in a remote location is to avoid using a headset. You need to be aware of your surroundings*

*and you can't be aware if you can't hear. Another thing you can do is to run with a partner or in a group. A third strategy is to run with a dog. Running outdoors can be very pleasant, but again, it's important that you use one or more of these strategies if you want to run in remote locations."*

Ask learners to turn to Part 1 on the learner worksheet in their packets and ask them to list two safety precautions a runner may take to reduce his/her vulnerability when running in a remote location, (avoid using a headset, run with a partner, run with a dog). Confirm correct answers orally and in writing on the whiteboard.

Next, ask learners to refer to Part 2 on the learner worksheet and to list three specific running sites that would be convenient for them. Then ask them to circle any locations that they consider remote. Lastly, ask the learners to select one of the three locations they have listed on their worksheet as the location for their training runs, keeping in mind any potential safety concerns associated with various locations when making their decision.

After the learners have completed these activities, ask for volunteers to share their choice of running sites. Write their responses on the whiteboard. Request that any learner who did not list at least three potential running sites complete their list with one or more of the sites suggested by other learners and listed on the whiteboard.

Ask learners to look under their chairs and remove the paper sneaker taped to the bottom of their chairs. (The class will be divided into four groups by sneaker color). Request learners to re-group themselves by sneaker color in each of the four corners of the room. Ask learners to share with their small group the most likely problem they foresee arising thus far in implementing the training program. Then ask the groups to brainstorm possible solutions to each problem presented. After several minutes, ask the learners to choose one member to share his/her problem and possible solutions with the larger group. Once they have done so, ask them to return to their seats. Ask for the representative from each "sneaker group" to share their problem and solution. Once all four have presented, ask learners to share any problem for which there did not appear to be a reasonable or satisfactory possible solution. If anyone raises such a problem, ask the larger group to brainstorm possible solutions.

### **Instruction in Subordinate Skills 3.4.2, 3.4.1, and 3.4**

Content Presentation and Learner Guidance

Present the following lecture:

*"Running is a low cost sport, in that it requires little in the way of special equipment or apparel. (Put up Overhead 3: "Antique shoes") It is critical, however to have at least one pair of running shoes (not walking shoes, tennis shoes, basketball shoes, etc.) that are in good condition, (less 500 miles of wear). If you don't have appropriate footwear for running, you might want to consider visiting a running specialty store. The employees are usually runners themselves and are experienced in fitting your feet for running shoes.*

*Be sure to wear the same weight socks that you plan to run in when you try on different shoes. Wearing inappropriate footwear can cause you to have an injury. Also be aware that wearing shoes that are worn (more than 500 miles of wear) can cause you to have an injury”.*

*“Your choice of apparel will depend upon the place you wish to run, the time of day, and the weather/season you plan to train in. At minimum, you will need a t-shirt and shorts/pants made of fabric that allows you to move. Although there is a wide array of specialized fabrics made to wick away moisture, an ordinary t-shirt and athletic shoes/pants are sufficient for our purposes. Depending on the weather, if you plan to run outdoors you may need an outer garment such as a sweatshirt or athletic jacket. You will also need some type of athletic socks. Women will need a running bra. Other than running shoes in good condition and clothing appropriate to your choice of running location, you need two more things: a water bottle of any type (hold up a water bottle) and a simple running or sport watch with a chronometer (hold up sport watch). The only thing you need the watch to do is to mark time elapsed. Consider purchasing the simplest sports or running watch you can find; for our purposes you do not need any feature other than the chronometer.”*

Ask learners to refer to [Part 3 on their learner worksheet](#), which is a list of needed running accessories and apparel. Request that they read through the list and circle those items that they do not presently have and will need to obtain prior to training.

When learners have completed this task, read through the list of clothing and accessories runners need, emphasizing the importance of having running shoes that are in good condition.

### **Instructor Materials for Cluster 3 Performance Objectives**

<b>Cluster 3</b>	<b>Instruction</b>
<b>3.5.1.1.1</b>	<b>Define adequate hydration</b>
<b>3.5.1.1.</b>	<b>State purpose &amp; importance of hydration</b>
<b>3.5.1.2.1</b>	<b>Identify running stretches</b>
<b>3.5.1.2</b>	<b>State purpose of running stretches</b>
<b>3.5</b>	<b>State steps of a training run</b>
<b>3.5.1</b>	<b>State components of a warm-up</b>
<b>3.5.3</b>	<b>State components of a cool down</b>
<b>3.5.2.1</b>	<b>Identify weekly run/walk schedule</b>
<b>3.5.2</b>	<b>Explain weekly run/walk schedule</b>

### Preinstructional Activity for Subordinate Skills 3.5

#### **Introduction/Motivation/Linking to Previous Skills**

Present the following lecture:

*“At this point in the workshop much of the planning for your 5K training race has already been done. You’ve selected the specific race you are going to train for, the specific days, time, and place for your weekly training runs, and the list of gear you need to begin training. Now comes the fun part – the training runs themselves! They are the building blocks for your training program. The information that follows next is critical for ensuring that you train enough to reach your goal of running your first race, but not so much that you risk injuring yourself. What we are going to do now is learn what is involved in a training run. We will also become familiar with the weekly run/walk schedule you will need in order to implement your training.”*

### **Instruction in Subordinate Skills 3.5.1.1 and 3.5.1.1**

Content Presentation and Learner Guidance

Present the following lecture:

*“Making sure we take in a sufficient amount of fluids, or hydrating each day is always important. It is crucial, as you may know from participating in other sports or fitness activities, that we adequately hydrate when we engage in any type of exercise. This is because of the loss of fluids through perspiration that occurs during exercise. Adequate hydration as it relates to running means drinking fluids, preferably water, at minimum one to two cups both before and after a run. Water is the best option for hydration. Caffeinated beverages such as tea, coffee, and colas should be avoided because they act as diuretics and actually rob our bodies of fluids. So again, it is important that we remember to drink 8 to 16 ounces of water before we set out on a run and another 8 to 16 ounces of water after we have finished running. Failure to adequately hydrate may have adverse consequences for the runner. Some symptoms of inadequate hydration, or dehydration may be mild, such as muscle weakness, headache, and dizziness. Other symptoms may be more severe and potentially dangerous, such as low blood pressure, rapid heartbeat, and unconsciousness. To avoid dehydration we drink 8 to 16 ounces of water both before and after a training run. It is often useful to fill a water bottle such as this (hold up water bottle) so that you know exactly how much you are drinking.”*

Request learners to work with their peer partners and refer them to Part 4 of the learner worksheet. Ask student pairs to take turns asking each other the list of questions. After several minutes, review the questions and confirm the correct answers.

### **Instruction in Subordinate Skills 3.5.1.2.1 and 3.5.1.2**

Content Presentation and Learner Guidance

Present the following lecture:

*“Another very important component of a training run is stretching those muscles used during running. There are a variety of stretches appropriate for warming up before a run and cooling down after a run. For a proper warm up, each of the following three muscle groups must be stretched prior to running (list the muscles groups on the whiteboard): the hamstrings, the calves, and the quadriceps. (Point to the location of each muscle group on your legs). These same muscle groups must again be stretched following a run in order to properly cool down. Stretching is necessary to avoid injury. I’d like to model two different stretches for each of the muscle groups we need to target. Please remember to stretch gently. We want to feel a pull on our muscles, but stop short of feeling pain. As you practice the stretches over time, you will become more flexible. Each time you stretch you should choose one stretch for each of the muscle groups we have talked about. Here are some of the stretches you can choose from.”*

Model the following stretches, naming the muscle group targeted by the stretch and giving a verbal explanation of the stretch:

### Quadriceps

Flamingo: Balance on one foot. You may want to hold onto a nearby object to help you keep your balance. Grab the ankle of the opposite leg and pull it back behind you, keeping your knee pointed down. Hold the stretch ten seconds. Change legs. Repeat with each leg.

Quadriceps stretch: Kneel on knees. Lean back with your body erect and arms at your side. Hold stretch ten seconds. Repeat.

### Calves

Wall push-up: Stand about 3 feet from the wall, feet at shoulder width and flat on the ground. Place your hands flat against the wall at shoulder height. Lean forward and bend your knees. Hold the stretch ten seconds. Repeat.

Wall push-back: Stand about 3 feet from the wall, feet together. Place hands flat against the wall at should height. Rock back on heels, keeping your hands on the wall and arms straight. Hold the stretch ten seconds. Repeat.

### Hamstrings

Hamstring stretch: Lie down with one leg extended into the air at a 90-degree angle. Place a towel behind the extended knee or if a towel isn’t available, simply grab the calf of the extended leg and pull gently toward you. Stretch other leg. Repeat with each leg.

Hamstring and back stretch: Lie on your back and tightly hug your knees. Hold the stretch ten seconds. Repeat.

Invite learners to stand and practice each of the following three stretches (one for each muscle group) as you model them and name the muscle group targeted: flamingo stretch (quadriceps), wall push-up (calves), and hamstring and back stretch (hamstrings). Provide corrective feedback as needed.

Ask learners to work with a peer. The learner names a muscle group and requests his/her partner to demonstrate an appropriate stretch for that muscle group. Circulate around the room, making sure that the learners are performing the stretches correctly. At the completion of this activity ask learners to take their seats. Model a few of the stretches and request that learners as a whole group name the muscle group targeted by each stretch that you model. Confirm the correct responses. Refer learners to the Running stretches sheet in their packets and indicate that it is a reference for their use as they train. Ask: “*What is the purpose of all of these stretches?*” Confirm the correct response (to avoid injury).

### **Instruction in Subordinate Skills 3.5, 3.5.1, and 3.5.3**

#### Content Presentation and Learner Guidance

Present the following lecture:

*“We’ve already talked about the importance of hydration to runners and what it takes to be adequately hydrated. We’ve also talked about the importance of stretches and have practiced a few of those stretches. Now let’s consider where hydration and stretching fit into our training runs. There are three steps to a training run: the warm up, the run itself, and the cool down. We’ll talk more about the actual run in a few moments. For now we are concerned with our warm-up and cool-down, the first and last steps of the training run. Both warm-ups and cool downs have the same two components and we are now familiar with each of them. They are hydration and stretching. It is important that we begin our training runs by warming up and by that we mean hydrating (drinking 8 to 16 ounces of water) and stretching (performing at least one stretch for each for the quadriceps, calves, and hamstrings). When we finish a run we need to cool down by performing the same activities: hydrating and stretching. The warm-up and cool downs should each take five to ten minutes. It does not matter in which order you hydrate and stretch, as long as you complete both activities before you run and again after you run”.*

Ask the learners to turn to Part 5 on the learner worksheet and to complete the graphic by writing in the three steps of a training run (warm-up, run/walk, cool down) and the two activities associated with both a warm-up and a cool down (hydrating, stretching). When the learners have completed the graphic, write the correct answers on the whiteboard and state them aloud.

### **Instruction in Subordinate Skills 3.5.2.1. and 3.5.2**

#### Content Presentation and Learner Guidance

Present the following lecture:

*“The last tool that we need to start training is the weekly run/walk schedule. All of you are presently able to walk five minutes at a brisk pace without stopping and to run for two minutes without stopping. Over the course of 12 weeks, you will be doing a combination of running and walking for a total of thirty minutes per training day on the four days per week that you have selected to train. Although the total amount of time per training run remains constant at thirty minutes, the ratio of running to walking gradually increases from week to week. In other words, you will start out on the first week walking more than running. Over time you will increase your time running while decreasing your time walking. How will you do that? Let’s take a look at the Weekly run/walk schedule that is in your packet. Please find it now and hold it up so I know that you have it.”*  
(Wait for learners to locate and hold up their individual copies).

*“You will notice that although the training program has been described as a 10-week program, there are twelve weeks listed on the weekly run/walk schedule. A minimum of ten weeks of training are needed to complete this program; however, two additional weeks are built into the schedule in case you must miss time due to illness, inclement weather, vacation, or other personal reasons. If you do not take time off throughout the ten-week period, the last week (week ten) is repeated during weeks eleven and twelve. Following the schedule in this way will ensure that you have enough time to train before your race despite minor scheduling setbacks. Remember that four training days are required each week and that no more than two training days should be consecutive. It is important that you run at whatever pace is comfortable for you. (Put up Overhead 4: Joggers vs. horses). Don’t be concerned if you feel you are running slowly! It is more important that you build endurance (a mileage base); speed can come later. Let’s look at how the schedule works.”*

Make a sample 7-day calendar on the whiteboard. Choose four nonconsecutive days as training days and write any time on the calendar on those days to indicate when training runs are scheduled. Ask learners to refer to week one on the weekly run/walk schedule. The schedule indicates that the run/walk ratio for week one is: run 2 minutes then walk 4 minutes, and that the runner is to repeat this sequence 5 times for a total of 30 minutes of training. On the whiteboard, write on the first training day of the week: “Run 2, walk 4; repeat 5 times”.

Ask learners to work with their peer partners. Each learner will choose any week on the schedule from week two through week ten and will explain to his/her partner what the daily run/walk schedule is for that week. Ask that each learner check the accuracy of his/her partner’s response and provide feedback when needed. Walk about the classroom monitoring students’ responses and provide corrective feedback as needed. After the learners have had a chance to complete this activity, return to the whiteboard. Model the

correct responses on the whiteboard for two more weeks (randomly chosen) on the weekly run/walk schedule.

### **Instructor Materials for Cluster 4 Performance Objectives**

<b>Cluster 4</b>	<b>Instruction</b>
<b>Main Step 4</b>	<b>Complete training calendar</b>

#### Content Presentation and Learner Guidance

Explain that the learners have come to the final step in designing their training programs. Commitment to any training program is critical to success. One important way for the runner to strengthen his/her commitment to training is to include training sessions in his/her weekly schedule. Scheduling training sessions on his/her personal calendar makes it more likely the runner will schedule other commitments around them. Model on the whiteboard how to complete the first week of training on a sample calendar including training dates, times, and locations. Then invite learners to complete the first week on their personal calendars, beginning the week they previously identified as the first week of training and writing in the dates, times, and locations they have previously selected for each week of the training program. Direct learners to share with one tablemate their plan for the first week of training. Request that the learners complete the information on their calendars for each of the remaining weeks.

When learners have completed their calendars, request that they check any two weeks of their partner's calendar (other than the first week), making sure that there are four training days per week scheduled, that there are no more than two consecutive days of training scheduled per week, and that the location and time of day of training runs is entered. Circulate about the room and provide corrective feedback as needed.

At the conclusion of the training, ask that any learners who wish to find a training partner remain. Encourage these learners to compare their schedules and to exchange personal information. If learners wishing to find a partner do not connect with one at the conclusion of training, remind them that they can access the websites of local running clubs and possibly join an existing beginning runner's group.

## Resource List

Additional information on the benefits of running:

[www.vanderbilt.edu/ans/psychology/health\\_psychology/running.html](http://www.vanderbilt.edu/ans/psychology/health_psychology/running.html)  
[www.coolrunning.com/cgi-bin/moxiebin/bm\\_tools.cgi?print+237;s=2\\_3;site=1](http://www.coolrunning.com/cgi-bin/moxiebin/bm_tools.cgi?print+237;s=2_3;site=1)  
[http://www.therunnersguide.com/benefitsof\\_running/](http://www.therunnersguide.com/benefitsof_running/)

General sources of information regarding upcoming local 5K races:

- The weekend section of the local newspaper (Fridays in the Washington Post)
- Weekly community newspapers (Gazette)
- Flyers and advertisements at local running stores, (e.g. Fleet Feet, R & J Sports)
- The websites of local running clubs:
  - Montgomery County Road Runners Club: [www.mcrrc.org](http://www.mcrrc.org)
  - Frederick Steeplechasers: [www.steeplechasers.org](http://www.steeplechasers.org)
  - DC Road Runners Club: [www.dcroadrunners.org](http://www.dcroadrunners.org)
  - Arlington Road Runners Club: [www.train4dc.com](http://www.train4dc.com)
  - Northern Virginia Road Runners Club: [www.novarun.com](http://www.novarun.com)
- Written publications of local running clubs

Overhead 1

Which of the following can provide us with information regarding future 5K races?

- Websites of local running clubs
- National running magazines
- The weekend section of the newspaper
- The daily newspaper
- Monthly publications of local running clubs
- Local running gear stores
- Sporting good chain stores
- Local community newspapers

## List of Upcoming 5K Races

### Capital for a Day – Brookeville 5K

Saturday, **May 09**, 2009 - Brookeville

- o 8:00am 5km race

Come out and run the parks and neighborhood streets of Brookeville – Capital for a day when the British burned Washington during the War of 1812.

The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### Location & Directions

Greenwood Elementary School

[3336 Gold Mine Road, Brookeville, MD 20833](#)

From I-495, take the Georgia Avenue North exit (Exit 31). Drive North on Georgia Avenue for 11.5 miles. Drive through the intersection with 108 and you will pass Greenwood Park on your left. Take the next left at Heritage Hills Drive. Then take the third left at Gold Mine Rd. Greenwood Elementary will be on your left and there is parking in both the school lots and on Gold Mine.

### Capital Crescent Run

Sunday, **June 07**, 2009 - Bethesda

- o 7:30am 0.25mi & 0.5mi young run (YR)
- o 7:45am 5km race (CS)

Join us on this shaded out-and-back course for the ever-popular Capital Crescent Run.

The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### Location & Directions

To get there from I-495 or Route 270, exit at Old Georgetown Rd (MD 187) South. Go approximately 2.5 miles then turn right onto Arlington Road. Turn left onto Bethesda Avenue, and then turn right into the parking lot at trail entrance at the intersection of Bethesda Ave and Woodmont Ave.

### Gaithersburg Cross Country

Friday, **June 12**, 2009 - Gaithersburg

- o 7:00pm 5km race (XC)

This is a flat, fast cross-country course around Gaithersburg High School and through Bohrer Park. The 5K (Cross Country Series) begins at 7pm.

The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### Location & Directions

Gaithersburg High School

[314 South Frederick Avenue, Gaithersburg, MD](#)

Take 270N, exit at Shady Grove Road, East. Turn North onto 355 (S. Frederick Avenue). Pass through 2 lights, then turn left onto Education Blvd. at the third light. Gaithersburg High School will be up on the right (314 South Frederick Avenue). Park on the right side of the school in the bigger parking lot. Park and walk around back to the staging area near the track.

### Run For Roses

Saturday, **June 20**, 2009 - Wheaton

- o 7:45am kids 0.25mi & 0.5mi young runs (YR)
- o 8:00am 5km

Please see the [event website](#) for more information.

### **Comus Run Cross Country**

Saturday, **August 15**, 2009 - Comus

- o 5:30pm 5km race (XC)  
Come out and enjoy the Bachman family hospitality as they host this cross-country race. You'll enjoy some nice, rolling hills while running 25% on trails and the remainder on grass. Bring your cross-country spikes!  
The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

### **Little Bennett's Revenge Cross Country**

Sunday, **October 11**, 2009 - Derwood

- o 8:30am 5km race (XC)  
Join us at this popular cross-country race. The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### **Location & Directions**

Agricultural History Farm Park

[18400 Muncaster Rd., Derwood, MD 20855](#)

From I-270N take exit 8 (Shady Grove Rd), bear right on ramp to Redland Road eastbound and go approx. 2.5M. Once you pass Muncaster Mill Rd, Redland Rd becomes Muncaster Rd. Continue 1M. Look for entrance sign for Agricultural Historic Farm Park, then turn left into park; follow road to the Park Headquarters.

### **Rockville 5k/10K**

Sunday, **November 01**, 2009 - Rockville

- o 8:30am 10km race
- o 8:30am 5km race

Join us for Montgomery County's oldest race. There is an entry fee and t-shirt for this race. Please see the [event website](#) for more information.

### **Candy Cane City 5k**

Saturday, **November 07**, 2009 - Chevy Chase

- o 8:00am 5km race (CS)  
Join us in Rock Creek Park for this Championship Series event. The flat, fast out and back course runs along Beach Drive and the trails of Candy Cane City in Chevy Chase.  
The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### **Location & Directions**

[7900 Meadowbrook Rd., Chevy Chase, MD 20815](#)

From I-495, exit 33 onto southbound Connecticut Ave. Turn left on East-West Hwy; right onto Meadowbrook Lane. Follow Meadowbrook Lane past Meadowbrook Stables to the Candy Cane City playground of Meadowbrook Park.

<b>May 2009</b>						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					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						

**June 2009**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
<b>28</b>	<b>29</b>	<b>30</b>				

<b>July 2009</b>						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>
<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	

**August 2009**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						<b>1</b>
<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>
<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>
<b>30</b>	<b>31</b>					

**September 2009**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>
<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>
<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>			

**October 2009**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				<b>1</b>	<b>2</b>	<b>3</b>
<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>
<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>
<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>

Overhead 2: "On the run" cartoon

On The Run

by John Sheppard



"I'm looking to clean up in the Over 100 category."

Female Runner



**Learner Worksheet for: Designing an Individualized 5K Training Program**

Part 1: What two strategies can you recommend to the runner who chooses to run in a remote location?

1. \_\_\_\_\_
2. \_\_\_\_\_

(avoid using a headset, run with a partner, run with a dog)

Part 2: List three places that would be convenient for you to run:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Part 3: Below is a list of needed running clothing and accessories. Circle those items that you do not presently have and will need to obtain prior to beginning training, based on your choice of running site.

running shoes

athletic socks

t-shirt

sweatshirt/jacket

loose fitting shorts/pants

running bra

sport/running watch with chronometer

water bottle

reflective vest

armband light

Part 4: Work with your peer partner to answer the following questions orally:

1. What should runners drink? (water)
2. When should runners drink? (before and after a run)
3. Why is it important for the runner to hydrate? (because we lose fluids due to perspiration during exercise)
4. What might happen to the runner if he/she does not adequately hydrate? (mild symptoms include muscle weakness, headache, dizziness; severe symptoms include low blood pressure, rapid heartbeat, unconsciousness)

Part 5: Fill in the blanks below to indicate the three components of a training run and the steps involved in the first and last components.

**Training Run**

<b>Step one</b>	<b>Step two</b>	<b>Step three</b>
(warm-up)	(run/walk)	(cool down)

What two activities make up a warm up or cool down?

1. \_\_\_\_\_ (hydrate)
2. \_\_\_\_\_ (stretch)

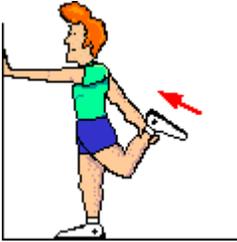
Overhead 3: "Antique shoes" cartoon



## Running Stretches

### Quadriceps

#### Flamingo



Balance on one foot. You may want to hold onto a nearby object to help you keep your balance. Grab the ankle of the opposite leg and pull it back behind you, keeping your knee pointed down. Hold the stretch ten seconds. Change legs. Repeat with each leg.

#### Quadriceps stretch



Kneel on knees. Lean back with your body erect and arms at your side. Hold stretch ten seconds. Repeat.

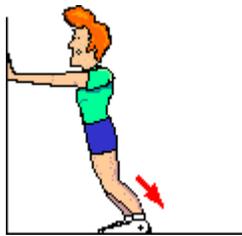
### Calves

#### Wall Push-up



Stand about 3 feet from the wall, feet at shoulder width and flat on the ground. Place your hands flat against the wall at shoulder height. Lean forward and bend your knees. Hold the stretch ten seconds. Repeat.

#### Wall Push-back



Stand about 3 feet from the wall, feet together. Place hands flat against the wall at shoulder height. Rock back on heels, keeping your hands on the wall and arms straight. Hold the stretch ten seconds. Repeat.

### Hamstrings

#### Hamstring stretch



Lie down with one leg extended into the air at a 90-degree angle. Place a towel behind the extended knee or if a towel isn't available, simply grab the calf of the extended leg and pull gently toward you. Hold strength ten seconds. Stretch other leg. Repeat with each leg.

#### Hamstring and back stretch



Lie on your back and tightly hug your knees. Hold the stretch ten seconds. Repeat.

**Weekly Run/Walk Schedule\***

\*Select four days each week to run/walk

Week 1: Run 2 minutes, walk 4 minutes. Repeat 5 times.

Week 2: Run 3 minutes, walk 3 minutes. Repeat 5 times.

Week 3: Run 5 minutes, walk 2.5 minutes. Repeat 4 times.

Week 4: Run 7 minutes, walk 3 minutes. Repeat 3 times.

Week 5: Run 8 minutes, walk 2 minutes. Repeat 2 times.

Week 6: Run 9 minutes, walk 2 minutes. Repeat twice, then run 8 minutes.

Week 7: Run 9 minutes, walk 1 minute. Repeat 3 times.

Week 8: Run 13 minutes, walk 2 minutes. Repeat twice.

Week 9: Run 14 minutes, walk 1 minute. Repeat twice.

Week 10: Run 30 minutes.

Week 11: Repeat week 10

Week 12: Repeat week 10

Overhead 3: “Gee don’t they run very fast” cartoon



## Learner Guide

**Instructional Goal:** The learner will design an individualized 10-week running training program that will enable him/her to train for a 5K road race. Components will include: a weekly run/walk schedule and information regarding choosing days of the week, time of day, and place to run, needed gear, and safety considerations.

**Terminal Objective:** In a classroom setting, the learner will design an individualized 10-week running training program by: identifying appropriate running gear, stating the components of a training run, and when provided a blank calendar and weekly run/walk schedule, by entering training start date, date, time and place of training runs, and target race date on the calendar.

**Notes to Learner:** During the next hour you will learn the components of an effective running training program and will design an individualized 10-week training program that will enable you to run in the 5K road race of your choice. In addition to information that will be provided by your instructor, you will also need the resources included in your learner packet, and which are described below.

### Learner Materials:

1. A learner guide
2. A resource list
3. List of upcoming 5K races
4. A blank calendar
5. Drawing of a female runner
6. A learner worksheet
7. Pictures and written descriptions of running stretches
8. The weekly run/walk schedule.

### 1. Introduction

Running is a low-cost, flexible sport that can be physically, mentally, and socially rewarding. Many runners experience a sense of accomplishment from participating in and completing races. The 5K race is a good introductory race for beginning runners because it requires only a modest amount of training. Today you will acquire the tools needed to design an individualized 10-week training program that will enable you to train for your first 5K race.

Before we get started, you will hear from a motivational speaker who will share her experience in participating in a training program similar to the one that will be presented here today. You will then have the chance to participate in a visualization exercise. Finally you will hear about some of the specific benefits running has to offer.

### 2. Selecting a race

There are several sources that you can consult to get information about upcoming 5K races: local running club publications, local running club websites, local running gear stores, local community newspapers, and the weekend section of local newspapers.

The 5K race is a popular distance and many are offered throughout the year. Races differ in size, setting (urban, suburban, rural), terrain, season, time of day, amenities, and even cost. Consider the characteristics that appeal to you in choosing your first 5K race.

After consulting the List of Upcoming Races resource in your packet, you will be asked to choose the race you wish to participate in. You will want to carefully consider your schedule and geographic location in choosing your race. Once you have selected your race, you will be asked to count backwards 12 weeks from the date of the race and to mark the first day of that week on your calendar. That will be the week your training program will begin.

### 3. Choosing training days, time of day and place to run, and listing gear

You need to commit four days per week to train. Training may cause your leg muscles to feel sore and/or fatigued. Because muscles need time to rest and recover, no more than two training days per week should be consecutive.

In choosing the time of day you want to run, be aware of safety issues surrounding early morning/night runs. Specifically, you have limited ability to see the terrain clearly in the dark, you may not be as aware of danger, drivers of vehicles may not see you, and there are likely to be fewer vehicles or people out on the roads/trails, which increases your susceptibility to being a victim of a crime. Limit your vulnerability by running with a cell phone, wearing a reflective vest, and wearing an armband light. **Do not run with a headset!**

You may run on a treadmill at home or in a gym/fitness center or outdoors in locations such as a high school/college track, paths, trails, tow path, and neighborhood streets. Exercise caution if you plan to run in a remote location by running with a partner or with a dog. **Do not run with a headset!**

Running is a low-cost sport that does not require much in the way of equipment. At minimum you will need a t-shirt, athletic socks, shorts/pants that allow you to move, and running shoes (not basketball, tennis, walking, or aerobic shoes) with less than 500 miles of wear on them. Women will need a running bra. If you plan to run outdoors, you may need a sweatshirt or athletic jacket. You will also need a water bottle and a simple running or sport watch with a chronometer.

### 4. Planning the training runs

For the purposes of this training, hydration means drinking 8 to 16 ounces of water both before and after a run. This is critical because we lose fluids through exercise due to

perspiration. Mild dehydration can lead to muscle weakness, headache, and dizziness. Severe dehydration can lead to low blood pressure, rapid heartbeat, and unconsciousness. Water is the best choice for runners. Drinking beverages such as tea, coffee, and colas is counterproductive because the caffeine in them acts as a diuretic and robs our bodies of fluids.

It is imperative that you stretch several muscle groups both before and after a run. The three muscle groups you need to stretch are: the hamstrings, the calves, and the quadriceps. Refer to the Running Stretches sheet in your packet for illustrations and descriptions of several stretches for each muscle group. Start out slowly and gently. As you practice the stretches over time you will become more flexible and you will accomplish the stretches more easily.

You've now been introduced to the two components of a warm-up and cool down. Before you run you need to hydrate and stretch, and after a run you need to hydrate and stretch. This will take 5 to 10 minutes of your time each time perform these activities. The order in which you do them does not matter.

The last component of the training run you need to consider is the run itself. Over the course of 12 weeks, you will be doing a combination of running and walking for a total of thirty minutes per training day on the four days per week that you have selected to train. Although the total amount of time per training run remains constant at thirty minutes, the ratio of running to walking gradually increases from week to week. In other words, you will start out on the first week walking more than running. Over time you will increase your time running while decreasing your time walking. A minimum of ten weeks of training are needed to complete this program; however, two additional weeks are built into the schedule in case you must miss time due to illness, inclement weather, vacation, or other personal reasons. If you do not take time off throughout the ten-week period, the last week (week ten) is repeated during weeks eleven and twelve. Following the schedule in this way will ensure that you have enough time to train before your race despite minor scheduling setbacks. Remember that four training days are required each week and that no more than two training days should be consecutive. It is important that you run at whatever pace is comfortable for you.

## 5. Completing the training calendar

The last step in this process is to complete your calendar with the training run dates, times, and locations for each of the 12 weeks leading up to your race. Scheduling training sessions on the calendar makes it more likely that you will schedule other commitments around them. Make sure you enter four training days per week, that no more than two consecutive days of training are scheduled per week, and that the location and time of day of training runs is entered.

## Resource List

Additional information on the benefits of running:

[www.vanderbilt.edu/ans/psychology/health\\_psychology/running.html](http://www.vanderbilt.edu/ans/psychology/health_psychology/running.html)  
[www.coolrunning.com/cgi-bin/moxiebin/bm\\_tools.cgi?print+237;s=2\\_3;site=1](http://www.coolrunning.com/cgi-bin/moxiebin/bm_tools.cgi?print+237;s=2_3;site=1)  
[http://www.therunnersguide.com/benefitsof\\_running/](http://www.therunnersguide.com/benefitsof_running/)

General sources of information regarding upcoming local 5K races:

- The weekend section of the local newspaper (Fridays in the Washington Post)
- Weekly community newspapers (Gazette)
- Flyers and advertisements at local running stores, (e.g. Fleet Feet, RnJ Sports, City Sports, Metro Run and Walk)
- The websites of local running clubs:
  - Montgomery County Road Runners Club: [www.mcrrc.org](http://www.mcrrc.org)
  - Frederick Steeplechasers: [www.steeplechasers.org](http://www.steeplechasers.org)
  - DC Road Runners Club: [www.dcroadrunners.org](http://www.dcroadrunners.org)
  - Arlington Road Runners Club: [www.train4dc.com](http://www.train4dc.com)
  - Northern Virginia Road Runners Club: [www.novarun.com](http://www.novarun.com)
- Written publications of local running clubs

## List of Upcoming 5K Races

### Capital for a Day – Brookeville 5K

Saturday, **May 09**, 2009 - Brookeville

- o 8:00am 5km race

Come out and run the parks and neighborhood streets of Brookeville – Capital for a day when the British burned Washington during the War of 1812.

The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### Location & Directions

Greenwood Elementary School

[3336 Gold Mine Road, Brookeville, MD 20833](#)

From I-495, take the Georgia Avenue North exit (Exit 31). Drive North on Georgia Avenue for 11.5 miles. Drive through the intersection with 108 and you will pass Greenwood Park on your left. Take the next left at Heritage Hills Drive. Then take the third left at Gold Mine Rd.

Greenwood Elementary will be on your left and there is parking in both the school lots and on Gold Mine.

### Capital Crescent Run

Sunday, **June 07**, 2009 - Bethesda

- o 7:30am 0.25mi & 0.5mi young run (YR)
- o 7:45am 5km race (CS)

Join us on this shaded out-and-back course for the ever-popular Capital Crescent Run.

The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### Location & Directions

To get there from I-495 or Route 270, exit at Old Georgetown Rd (MD 187) South. Go approximately 2.5 miles then turn right onto Arlington Road. Turn left onto Bethesda Avenue, and then turn right into the parking lot at trail entrance at the intersection of Bethesda Ave and Woodmont Ave.

### Gaithersburg Cross Country

Friday, **June 12**, 2009 - Gaithersburg

- o 7:00pm 5km race (XC)

This is a flat, fast cross-country course around Gaithersburg High School and through Bohrer Park. The 5K (Cross Country Series) begins at 7pm.

The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### Location & Directions

Gaithersburg High School

[314 South Frederick Avenue, Gaithersburg, MD](#)

Take 270N, exit at Shady Grove Road, East. Turn North onto 355 (S. Frederick Avenue). Pass through 2 lights, then turn left onto Education Blvd. at the third light. Gaithersburg High School will be up on the right (314 South Frederick Avenue). Park on the right side of the school in the bigger parking lot. Park and walk around back to the staging area near the track.

### Run For Roses

Saturday, **June 20**, 2009 - Wheaton

- o 7:45am kids 0.25mi & 0.5mi young runs (YR)
- o 8:00am 5km

Please see the [event website](#) for more information.

### **Comus Run Cross Country**

Saturday, **August 15**, 2009 - Comus

- o 5:30pm 5km race (XC)  
Come out and enjoy the Bachman family hospitality as they host this cross-country race. You'll enjoy some nice, rolling hills while running 25% on trails and the remainder on grass. Bring your cross-country spikes!  
The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

### **Little Bennett's Revenge Cross Country**

Sunday, **October 11**, 2009 - Derwood

- o 8:30am 5km race (XC)  
Join us at this popular cross-country race. The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### **Location & Directions**

Agricultural History Farm Park

[18400 Muncaster Rd., Derwood, MD 20855](#)

From I-270N take exit 8 (Shady Grove Rd), bear right on ramp to Redland Road eastbound and go approx. 2.5M. Once you pass Muncaster Mill Rd, Redland Rd becomes Muncaster Rd. Continue 1M. Look for entrance sign for Agricultural Historic Farm Park, then turn left into park; follow road to the Park Headquarters.

### **Rockville 5k/10K**

Sunday, **November 01**, 2009 - Rockville

- o 8:30am 10km race
- o 8:30am 5km race

Join us for Montgomery County's oldest race. There is an entry fee and t-shirt for this race. Please see the [event website](#) for more information.

### **Candy Cane City 5k**

Saturday, **November 07**, 2009 - Chevy Chase

- o 8:00am 5km race (CS)  
Join us in Rock Creek Park for this Championship Series event. The flat, fast out and back course runs along Beach Drive and the trails of Candy Cane City in Chevy Chase.  
The race is part of our low-key club race series and is free for MCRRC members, \$10 for non-members 18 and over, and \$5 for non-members under 18. Registration is race-day only starting an hour before the race.

#### **Location & Directions**

[7900 Meadowbrook Rd., Chevy Chase, MD 20815](#)

From I-495, exit 33 onto southbound Connecticut Ave. Turn left on East-West Hwy; right onto Meadowbrook Lane. Follow Meadowbrook Lane past Meadowbrook Stables to the Candy Cane City playground of Meadowbrook Park.

<b>May 2009</b>						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					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						

**June 2009**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
<b>28</b>	<b>29</b>	<b>30</b>				

<b>July 2009</b>						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>
<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	

**August 2009**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						<b>1</b>
<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>
<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>
<b>30</b>	<b>31</b>					

**September 2009**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>
<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>
<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>			

**October 2009**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				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

Drawing of female runner



**Learner Worksheet for: Designing an Individualized 5K Training Program**

Part 1: What two strategies can you recommend to the runner who chooses to run in a remote location?

3. \_\_\_\_\_

4. \_\_\_\_\_

Part 2: List three places that would be convenient for you to run:

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

Part 3: Below is a list of needed running clothing and accessories. Circle those items that you do not presently have and will need to obtain prior to beginning training, based on your choice of running site.

running shoes

athletic socks

t-shirt

sweatshirt/jacket

loose fitting shorts/pants

running bra

sport/running watch with chronometer

water bottle

reflective vest

armband light

Part 4: Work with your peer partner to answer the following questions orally:

5. What should runners drink?
6. When should runners drink?
7. Why is it important for the runner to hydrate?
8. What might happen to the runner if he/she does not adequately hydrate?

Part 5: Fill in the blanks below to indicate the three components of a training run and the steps involved in the first and last components.

**Training Run**

**Step one**

**Step two**

**Step three**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What two activities make up a warm up or cool down?

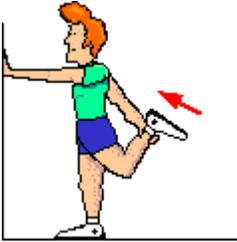
9. \_\_\_\_\_

10. \_\_\_\_\_

## Running Stretches

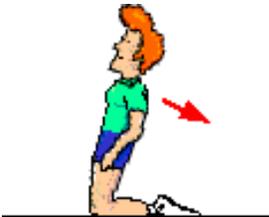
### Quadriceps

#### Flamingo



Balance on one foot. You may want to hold onto a nearby object to help you keep your balance. Grab the ankle of the opposite leg and pull it back behind you, keeping your knee pointed down. Hold the stretch ten seconds. Change legs. Repeat with each leg.

#### Quadriceps stretch



Kneel on knees. Lean back with your body erect and arms at your side. Hold stretch ten seconds. Repeat.

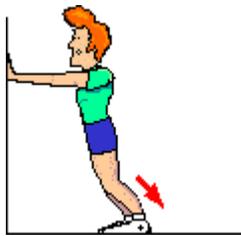
### Calves

#### Wall Push-up



Stand about 3 feet from the wall, feet at shoulder width and flat on the ground. Place your hands flat against the wall at shoulder height. Lean forward and bend your knees. Hold the stretch ten seconds. Repeat.

#### Wall Push-back



Stand about 3 feet from the wall, feet together. Place hands flat against the wall at shoulder height. Rock back on heels, keeping your hands on the wall and arms straight. Hold the stretch ten seconds. Repeat.

### Hamstrings

#### Hamstring stretch



Lie down with one leg extended into the air at a 90-degree angle. Place a towel behind the extended knee or if a towel isn't available, simply grab the calf of the extended leg and pull gently toward you. Hold strength ten seconds. Stretch other leg. Repeat with each leg.

#### Hamstring and back stretch



Lie on your back and tightly hug your knees. Hold the stretch ten seconds. Repeat.

**Weekly Run/Walk Schedule\***

\*Select four days each week to run/walk

Week 1: Run 2 minutes, walk 4 minutes. Repeat 5 times.

Week 2: Run 3 minutes, walk 3 minutes. Repeat 5 times.

Week 3: Run 5 minutes, walk 2.5 minutes. Repeat 4 times.

Week 4: Run 7 minutes, walk 3 minutes. Repeat 3 times.

Week 5: Run 8 minutes, walk 2 minutes. Repeat 2 times.

Week 6: Run 9 minutes, walk 2 minutes. Repeat twice, then run 8 minutes.

Week 7: Run 9 minutes, walk 1 minute. Repeat 3 times.

Week 8: Run 13 minutes, walk 2 minutes. Repeat twice.

Week 9: Run 14 minutes, walk 1 minute. Repeat twice.

Week 10: Run 30 minutes.

Week 11: Repeat week 10

Week 12: Repeat week 10

## **Formative Evaluation Report**

The formative evaluation was completed in three stages. In the first stage an expert review of the instructional materials was obtained from a subject matter expert (SME). In the second stage of the formative evaluation process one-on-one reviews were conducted with target learners. The final stage of the formative evaluation consisted of a small group evaluation with several target learners. The results of each of the three reviews are presented below.

### **1. Subject Matter Expert (SME)**

One individual with more than 40 years of experience running and participating in short distance road races served as a subject matter expert in reviewing the instructional materials. Although this individual was very knowledgeable about the content of the instruction, he was completely unfamiliar with the instructional process. The SME was provided with the following materials: instructional analysis, performance objectives, instructor and student guides, and assessment instruments. He was asked to review all of the documents and to comment on the following:

- Are the objective statements clear and meaningful?
- Does the instructional analysis present a logical sequence of goal steps and subordinate skills?
- Are the entry level skills sufficient for learners to be successful with the instruction?
- Is the content complete, accurate, and up to date?
- Are the instructional materials interesting, motivating, correctly sequenced, easy to understand, appropriately “chunked”?
- Is the vocabulary and sentence structure appropriate and consistent in level of difficulty?
- Are the learner participation activities logically related to the content and learner guidance?
- Are the assessments of reasonable difficulty level?
- Are the test items clear?
- Does the amount of instruction appear reasonable for the intended audience for a one-hour time block?

### **Overview of SME Feedback**

The SME indicated that the objective statements were generally easy to understand; however, he recommended a change in the instructional goal to make more explicit what the components of the training program would be. The SME approved of the instructional strategy and sequencing of the goal steps and subordinate skills. He affirmed that the entry skills were necessary for the learner to be successful, but questioned whether they should be more stringent. For example, rather than stating that the learner should be able to run for two minutes without stopping at any speed, he suggested that some speed be suggested. His fear was that if a learner began the training

running two minutes extremely slowly, he/she might complete the training program but still not cover the distance of a 5K race. He felt this would be an extreme case, but one that needed to be considered to ensure the success of the greatest possible number of learners.

The content of the instruction was generally judged to be accurate and up to date; however, some small additions were suggested to the content. Although the SME suggested that the addition of even more content might be helpful to the beginning runner, he felt that given the time constraints of the instructional period, it wouldn't be practical to add more content. Additionally, he stated that the amount and type of content provided was adequate for the beginning runner to safely train for a 5K race. Some suggestions were made for additions to the resource materials in the instructor and student guides.

The SME commented that there seemed to be a variety of activities for the learners to participate in and that they had sufficient opportunities to demonstrate what they had learned. He judged the assessments to be "easy" and clear, but appropriate given the introductory nature of the instruction and that the background knowledge of the participants cannot be assumed. The SME indicated that the materials were reasonably motivating. He felt the material could likely be covered within one hour of instruction. An additional comment was that there was enough specificity in the instructor guide for anyone to deliver the instruction. The SME's greatest concern was for the transfer of skills learned in the classroom to the performance context and noted this as the most significant weakness in the instruction.

## **2. One-on-One Reviews**

One-on-one reviews were conducted with two target learners in an informal setting. Both were female, but of different ages: one was in her twenties and the other was in her forties. These learners were selected because of the difference in their ages and the varying degrees of confidence they possessed that they could achieve the terminal objective. It was hoped that these participants would bring different perspectives to the review. It was explained that the purpose of their participation was to provide feedback on new instruction that has been designed. The target learners were presented (separately) with the instructional analysis, performance objectives, instruction, and assessment tools. They were asked to read through the materials and to take the tests included in the materials. The learners were requested to react to the materials by writing comments and questions directly on their copies of the materials. They were also invited to ask clarifying questions of the designer as they read through the materials. Small errors such as typographical errors and poor word choices that were noted by the first target learner were corrected before the second target learner was presented with the materials. After each of the reviewers had completed her review, the following questions were asked:

Do you have the required entry level skills?  
Are the objectives and expected outcomes clear?

Is the content easy to understand?  
 Is there too much or too little information presented at one time?  
 Is the content too basic or too difficult?  
 Is the vocabulary in the materials appropriate?  
 Is the sentence complexity in the materials appropriate and clear?  
 Are the directions for the learner activities easy to understand?  
 Are the learner activities well-paced, of sufficient variety?  
 Are the content and learner activities interesting?  
 Are they applicable to your personal situation?  
 Are the learner resources helpful, supportive of the instruction?  
 Are the cartoons purposeful or are they peripheral to the content?  
 Are the assessment tools comprehensive and representative of the instructional content?  
 Are the test items clear?  
 Can you see yourself being successful in achieving the stated objective based on the instruction?  
 If not, what other information/skills/supports would you imagine you would need to be successful?  
 Do you believe you would have the motivation and self-discipline to implement the training program independently over the 10-week period?  
 How would you rate your enthusiasm to begin the training program? (Very enthusiastic, mildly enthusiastic, neutral, not enthusiastic)

### **Overview of One-on-One Feedback**

Both reviewers stated that they had the required entry level skills; however, the older reviewer expressed a lack of confidence that she could achieve the terminal objective. The younger reviewer, on the other hand, expressed confidence that she could complete the training and run a 5K race. Both agreed that the objectives were clear and that the content was easy to understand. One pointed out that nowhere in the instructional materials is the distance of a 5K given in miles and indicated that this was an important piece of information to include somewhere. Both reviewers stated that the content was logically sequenced and that there was a reasonable amount of information presented given the time frame of one-hour. One of the reviewers pointed out that some target learners will likely already be familiar with some of the content as a result of their participation in other physical activities (e.g. the importance of hydration); however, the other reviewer thought it was important for all learners to hear the information presented as a review or reminder.

The reviewers felt the type and pacing of the learner activities was good. They particularly liked the idea of regrouping by sneaker color under the chair as a way of meeting other learners. On a practical note, they felt this activity would provide a good opportunity for learners to get up and move around during the course of the instruction. The reviewers indicated that the resources provided were helpful and that they supported the content. They appreciated the “light heartedness” of the cartoons and did not feel that they distracted from the instruction.

Comments about the assessment tools were that they were “easy” and “fool-proof”. The reviewers felt they adequately represented the content of the instruction. They considered the items clear and “fair”.

Both women expressed enthusiasm about beginning the training program; one was “very enthusiastic” (the younger, more confident reviewer) and the other was “mildly enthusiastic”. When was asked what information/skills/supports they feel they might need to be successful with the training program, one reviewer (the “very enthusiastic” one) could not think of anything. The second reviewer voiced concerns that she would actually follow through on the training without a buddy or group.

Based upon the feedback received through the one-on-one reviews, the materials were revised (as described in the Revision Report/Plan). The revised materials were used for the small group evaluation.

### **3. Small Group Evaluation**

A small group evaluation was conducted to identify any remaining problems with the instruction that were not uncovered either in the SME or one-on-one reviews. Three target learners participated, all of whom were females ranging in age from 29 to 47. It was explained that the purpose of their participation was to provide feedback on new instruction that has been designed. The designer delivered the instruction to the three target learners simultaneously. The small group evaluation was conducted in the designer’s home. Due to the small number of participants and the limitations of the setting, certain adaptations were made to the instruction. For example, because an overhead projector was not available, the designer held up 8 X 10 pictures of the overheads for the learners to view. Another modification was that the designer had to “improvise” the presentation by the guest speaker. Also, because there were only three learners, there was not an opportunity to switch partners or to regroup with other learners. Finally, it should be noted that the participants were all very familiar with each other and with the designer/instructor, a factor that would not necessarily occur in a real training situation. At the conclusion of the instruction learners were given an attitude questionnaire to complete. Immediately following the instruction and using the data collected from the learner’s performance on the assessments and from the attitude questionnaire (attached to this report), the designer conducted a focus group discussion to gain additional information on the learners’ reactions to the instruction.

#### **Overview of Small Group Evaluation Feedback**

The participants in the small group stated that they enjoyed participating in the group and that they generally felt positive about the instruction. The guest speaker and visualization exercise were both rated as “very motivational” activities on the attitude survey. The participants reported that the content was easy to understand and that the written materials were clear. One participant expressed that some of the content was very basic and that any learner who would be pursuing the goal of running a 5K race would likely already know some of it. Neither of the other two participants voiced this concern.

The participants indicated that there were sufficient opportunities for learners to practice their skills; however, one of the participants felt that there were too many opportunities for practice and that the instruction could have “moved along faster” without as many learner activities. Further feedback about the learner activities indicated that the learners found them enjoyable and considered them relevant; however, it should be noted that they did not have the opportunity to experience the instruction exactly as intended due to the small size of the group. Feedback on the written assessment was that it was a fair representation of the content and was very easy. (None of the participants responded incorrectly to any of the test items, which supported their observation). There was some confusion during the part of the instruction where learners began completing their calendars and were asked to check the calendar of their partner. Specifically, one of the participants had entered her training information on a PDA and her peer partner did not know how to operate the device in order to check the accuracy of the information. It proved a source of amusement for the learners, but took several minutes for them to resolve.

Two of the three participants expressed that the learner would need to have a high degree of motivation in order to complete the training program independently, and anticipated that there might be learners who complete the training workshop and never follow through on actually training and running a 5K. When asked what supports they imagined might aid the learner, a running group that trained together was mentioned by one. The other participant felt that there weren't any other supports that could be provided, and that it was inevitable that some learners wouldn't follow through on the training. One learner suggested having the instruction include a practice run as part of the training.

With regard to their level of confidence in completing the training program and running a 5K race, responses on the attitude survey ranged from 4 (Somewhat confident) to 5 (Very confident). One participant expressed concern about consistently finding time to train, while another stated that she found it easier to make a commitment such as this if she had a partner.

### **Formative Evaluation Process**

For this project only two of the recommended formative evaluation procedures were implemented: one-on-one reviews and a small group review. Feedback from the participants in the one-on-one reviews and small group review and from a subject matter expert on the project was generally positive, in that the objectives appeared clear, the goals steps and subordinate skills logically sequenced, the content complete and accurate, the learner activities appropriate, and the assessments reasonable. Specific recommendations were provided on ways to improve both the instructional process and the content itself. Several of the changes recommended by the SME were made prior to conducting the one-on-one reviews. Small errors in the content (word choice, typographical errors) caught by the first one-on-one review participant were corrected before the materials were presented to the second participant. The materials were revised a third time based on the feedback of the second one-on-one review participant. These

revised materials were used in the small group evaluation. (The recommended changes are presented in depth in the Revision Plan document).

Feedback from each of the three sources pointed out a variety of weaknesses in the project. The feedback I thought I would most likely to receive (that the pace of the instruction was too slow and basic) was given by only one of the participants in the small group. Most of the feedback I was provided, however, was unanticipated. Given the number of hours that have been devoted to the project, that finding was somewhat surprising, but clearly illustrated the value of having others review your work. It also suggests that by not conducting a field trial, I am likely missing valuable feedback that could strengthen the project.

There were some drawbacks to conducting the formative evaluation process as was done for this project. Due to time limitations in completing the project only the minimum number of reviews were asked to participate. As a result, the participants were not likely a great representation of the target audience. In this case the one-on-one reviewers and small group participants were all female, highly educated, very accustomed to participating in instructor-led professional training, and within a narrower age range than the training targeted. By including more participants, I would likely have obtained a more representative sample of the target audience. Another major drawback was that the small group participants consisted of only three individuals who knew each other very well. As a result, those learner activities that involved changing partners or regrouping could not be implemented with the small group. Also as a result of the small number of participants, it is likely that the time it took to complete the training in the small group evaluation was shorter than would be needed with a larger group of learners. Another drawback was that the small group participants knew each other well, which is not a condition that would necessarily be present in the actual training. The small group evaluation was conducted in the designer's home, rather than in the true learning context, and as a result one of the tools needed (an overhead projector) was not available. A final drawback was the use of biased participants, all of whom were close friends or family members of the designer. It is very likely that they were all invested in the designer's successful completion of the project and may not have been as critical as an unbiased group of reviewers would have been. I would address each of these concerns in future design projects.

## Attitude Survey

Please circle one number for each question.

### A. To what degree did you find the following motivational?

	<u>Not motivational</u>	<u>Somewhat motivational</u>	<u>Very motivational</u>
Guest speaker	1	2	3
Visualization exercise	1	2	3

### B. How would you rate the clarity of the materials?

	<u>Not clear</u>	<u>Somewhat clear</u>	<u>Clear</u>
Lectures	1	2	3
Resource materials	1	2	3
Learner Worksheet	1	2	3

### C. How would you rate the difficulty level of the following?

	<u>Too easy</u>	<u>Appropriate difficulty level</u>	<u>Too difficult</u>
Content	1	2	3
Assessments	1	2	3

### D. How confident do you feel that you will be able to implement the training program and achieve the goal of running a 5K race?

<u>Not at all confident</u>	<u>Not very confident</u>	<u>Neutral</u>	<u>Somewhat confident</u>	<u>Very confident</u>
1	2	3	4	5

## Revision Report/Plan

A series of revisions were completed: the first following the subject matter expert (SME) review, the second after the first one-on-one review, and the third following the second one-on-one review. The revisions suggested by the SME and one-on-one reviewers are described first, along with the designer's rationale for either incorporating them into the instructional materials or for excluding them. The recommendations for changes made by the small group participants are then described, along with the designer's plans to revise (or not revise) the project.

### SME Suggested Revisions

1. Instructional Goal: It was suggested that the phrase "needed tools" be expanded to indicate what specific tools will be a component of the training. The change was made to the instructional goal as follows:

"The learner will design an individualized 10-week running training program that will enable him/her to train for a 5K road race. Components will include: a weekly run/walk schedule, information regarding choosing days of the week, time of day, and place to run, needed gear, and safety considerations".

2. Resource List: It was suggested that the general sources of information regarding upcoming local 5K races include both the specific websites of local running clubs and any information available regarding their written publications. An additional website was recommended for inclusion that lists all upcoming races in the local area. The Resource List has been updated with these changes.

3. Instruction in Subordinate Skills 3.1.1.1, 3.3.2, and 3.3: It was suggested that the term "trails" be made more specific as "both paved and unpaved paths" to ensure that learners understood there are two choices of terrain possible for running on.

4. Information regarding Cluster Performance Objectives: The SME did not understand the purpose of including subheadings for each of the clusters, (i.e. "Instructor Materials for Cluster 1 Performance Objectives") or listing the main steps and subordinate skills included in each cluster. Given that the information was presented in a confusing manner, it was condensed and put into a table format.

5. Instruction in Subordinate Skills 3.3.1.1, 3.3.2, and 3.3: The SME suggested including carrying mace as an additional action that the runner could take to decrease vulnerability. After researching the legality of using items such as mace and pepper spray, it was learned that states and localities have different limitations on their use, including the strength of the substance and the age of the person using them. Given that some learners

may be minors and that the training would likely draw from a mix of counties and possibly even states (MD, VA, DC), it would be difficult to present the limitations for all possible geographical areas. Also, it was unclear if there would be liability issues in encouraging learners to use such substances if in fact they were used in a manner that did not comply with local laws. For these reasons the suggestion was not incorporated into the project.

6. Entry Level Skills: The SME questioned whether the entry level skills of “running for two minutes at any pace” would be sufficient for all learners to achieve the goal of running a 5K race. In other words, a learner with a poor level of physical fitness might be able to run for two minutes without stopping, but at a very slow rate of speed. Such a learner might follow the training program faithfully and at the end be able to run for 30 consecutive minutes, but still not be able to cover the distance required for the 5K race. The designer considered this suggestion, but rejected it for fear of excluding learners who might be intimidated because they do not run fast. Even if the learner ran at an extremely slow pace for 30 minutes and then fatigued, he/she could walk the rest of the distance and still complete the race. The emphasis of the training is not on competition, but on participation.

7. Transfer of Skills: The SME remarked that the greatest weakness in the project is the fact that no actual running takes place. Although the addition of a running component to the training would likely be very helpful in making the training “real” and in assisting the learner in transferring learned skills to the performance context, it does not seem possible to include this component within the one hour time limit of the instruction.

### **One-on-One Review Suggested Revisions**

1. Errata: Various errata (e.g. an extra word, typographical error, wrong choice of punctuation) in the instructor and student guides were noted and corrected.
2. Word Choice: Several word choices were questioned due to their lack of clarity to the reviewers, and substitutions were made that the reviewers favored and felt were more specific or clearer. Some examples included “explain”/tell, “means”/leads to, “stretches”/running stretches, and “towards your chest”/forward.
3. Sentence Structure: Several revisions were suggested in sentence structure due to the complexity and lack of clarity of the original sentences. These sentences occurred in one performance objective and in the content presentation and learner guidance sections of two clusters. Reviewers had a chance to evaluate the revised sentences and indicated that they represented an improvement over the originals.
4. Repetition: It was questioned whether the designer had intended to repeat cautions about running with a headset under both the safety considerations of running at night and safety considerations of running in a remote location sections of the instruction. One reviewer commented that the information was redundant and that it wasn’t necessary to repeat it. Although the information is redundant, the designer felt that by repeating it in a

second section of the instruction, it would give the emphasis to the information that she felt it warranted. Rather than revise this portion of the instruction following the one-on-one reviews, it was decided to wait for feedback from the small group evaluation and to consider whether there was a consistent concern with redundancy of this information.

5. 5K Distance: It was pointed out that the actual distance in a 5K race was not mentioned anywhere in the instructional materials. The revision was made by inserting this information in the Introduction to the instruction.

6. Basic Content: One reviewer mentioned that the information was very basic and could be assumed for some learners, (e.g. warming up and cooling down before and after exercise, hydrating). Because the target audience is broad and would likely include those who may not know that information, however, it was decided to retain the content. As a compromise it was decided to include a statement in the Instruction in Subordinate Skills 3.5, 3.5.1, and 3.5.3 that the information presented may be familiar to some learners, as a means of acknowledging that it would be basic information for some.

7. Training Partner: One indicated that she would be more likely to follow through on the training if she had a training partner, and that this would be a tool that would benefit her in transferring learned skills to the performance context. Although in the Instruction in Main Step 1 and Subordinate Skill 1.1 learners have the opportunity to “network” with other runners planning to run the same race, it was decided to explicitly state that running with a partner can strengthen the commitment to implementing the training program. Additionally, learners wishing to find a training partner among the group will be invited to stay and do so at the conclusion of the instruction.

### **Small Group Suggested Revisions**

1. Pace of instruction: One participant indicated that the pace of instruction during the Instruction in Subordinate Skills 3.5, 3.5.1, and 3.5.3 was too slow. This was a similar observation to the one made by a reviewer in the one-on-one reviews, namely that this content was very basic and could be assumed for some learners. The designer was reluctant to make further changes to the instruction, (beyond acknowledging that the information may be familiar to some learners), due to the fact that neither the one-on-one reviews nor the small group were completely representative of the target audience. It is possible that participants may have had more knowledge and/or experience than other intended learners. Either additional one-on-one reviews or small group evaluation with a more balanced group of target learners or a field test would likely reveal if this is a serious flaw in the instructional design. Pending further results, the instructional design could either be modified or the target audience could be better (more narrowly) defined for those learners without much experience with running or physical fitness activities.

2. Calendars: One problem that arose was that one participant entered her training program on her PDA. When the learners switched “calendars” to check each other’s work, the peer learner needed help to view the information on the PDA. Given the prevalence of such devices, this is very likely to occur in real training. Although the

easier solution for training would be to have all learners enter the information on paper calendars, it is not the best or most efficacious solution for learners who use such devices. It was decided to include a statement during Cluster 4 Instruction acknowledging that some learners will be entering their information on a PDA and that peer learners unfamiliar with such devices will have the opportunity to see how they work while checking their partner's "calendar".

3. Transfer of Skills: As did the SME and one-on-one reviewers, small group participants remarked that the learner would need to have a good deal of self-motivation in order to complete the training program independently. This concern was addressed during the one-on-one reviews. An additional course of action that could be taken following a field test, would be to survey the participants six months later to determine how many of them completed the training, if they did it alone or with a partner/group, and if they did not complete it the reason they did not. Results from such a survey would indicate how large a problem transfer of skills is. If in fact transfer of skills is problematic, it might be advisable to amend the instruction to target one specific 5K race learners would train for and to set up an optional training group that participants could join. Another simpler solution might be to send motivational e-mails to participants after they have completed the training.

#### **Designer Note**

Given the manner in which the formative evaluation process was conducted, it never became apparent if the instruction could be completed within the one-hour time frame. This can only be determined by conducting a field test of the instruction.