Cycling Skills Clinic Guide

A step-by-step approach to planning and initiating a bicycle safety skills event.

U.S. Department of Transportation
National Highway Traffic Safety Administration

NHTSA
www.nhtsa.gov

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its content or use thereof. If trade or manufacturers' names or products are mentioned, it is because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Acknowledgement

NHTSA gratefully acknowledges the support and expertise provided during the development of this guide by the League of American Bicyclists, and by Lois Chaplin, bicycle and pedestrian specialist, Cornell Local Roads Program, Ithaca, New York.

Table of Contents

Chapter 1: Overview 1
- Guide Purpose 2
- Cycling Skills Clinic Purpose 3
- Effective Bicycle Education 3
- Use of Skilled Instructors 5

Chapter 2: Organizing a Cycling Skills Clinic 6
- Steps to Organize a Cycling Skills Clinic 8
- Clinic Supplies Needed 19
- Clinic Layout 20
- Clinic Flow 24

Chapter 3: Clinic Organizer's Summary 25
- Volunteer Orientation 26
- The Basic Essentials 26
- Station Setup and Intent 34

Chapter 4: Cycling Skills Clinic Stations 35
- Station 1: Check-In 36
- Station 2: Helmet Fit 39
- Station 3: Bike Fit and Inspection 42
- Station 4: Start and Stop 45
- Station 5: Avoid Hazards 49
- Station 6: Scan and Signal 52
- Station 7: Turn and Yield 56
- Station 8: Enter a Roadway 58
- Station 9: Intersections 61
- Station 10: Traffic Practice 65
- Celebrate Success 69

Appendices 70
- Appendix A: Explanation of Terms
- Appendix B: Sample Checklists
- Appendix C: Sample Letters and News Releases
- Appendix D: Sample Parental Consent Waivers
- Appendix E: Sample Bicycle Safety Checks
- Appendix F: Sample Bicycle Safety Quizzes
- Appendix G: Promise Card and Helmet Pledge
- Appendix H: Certificates and Progress Forms
- Appendix I: Take-Home Tip Sheets for Bicycle and Pedestrian Safety
- Appendix J: Station Signs
- Appendix K: Sample Props
- Appendix L: Clinic Station Diagrams and Dimensions
- Appendix M: Frequently Asked Questions
- Appendix N: Keeping Loaner Helmets Clean
- Appendix O: How To Fit a Bicycle Helmet
- Appendix P: How to Signal Your Turns
- Appendix Q: Sample Cycling Skills Clinic Evaluation

Chapter 1

Cycling Skills Clinic Overview

Cycling Skills Clinic Overview

Bicycling is an activity that people of all ages can enjoy for a lifetime. It is a cost-effective mode of transportation. Whether riding for fun, exercise, or transportation, bicyclists can and should enhance their safety. In addition to learning safety tips and the rules-of-the-road in a classroom, bicyclists should learn to be safe by practicing on a bicycle in a controlled environment.

Guide Purpose:

This guide is written for those interested in planning a bicycle safety skills event for children either at school or at other community venues. If you are reading this guide, you have likely been approached about providing a bicycle safety program that includes on-bike training. You probably represent law enforcement, public health, emergency responders, school professionals, safety advocates, or parents. This guide gives you a step-by-step approach to planning and initiating a bicycle safety skills event, including instructions and resources for setting up a course and conducting it to meet the needs of all the children participating. Use these ideas to help plan your safety skills event, but don't let it limit your creativity in planning your own program. Consider special audiences in your community, including those who are non-English-speaking, older children and even adults who may want to participate. Finally, this guide is not copyrighted, so you are free to use it without permission, and you can adapt it as necessary based on your community's need.

This guide draws from a variety of "bicycle rodeo" guides, as they were once called, and incorporates ideas, activities, and suggestions from those who have been organizing bicycle rodeos for years. While more stations can be added, stations 1-7 are the most critical for comprehensive on-bicycle training and should be included in ***every*** cycling skills clinic for participants age 10 and older.

Cycling skills clinics, by their very nature, are designed to get the maximum numbers of participants engaged in a hands-on learning experience that demonstrates the basics of traffic safety when bicycling. It is important to note that a cycling skills clinic is **not** a comprehensive bicycle safety program. Once completed, students do not suddenly have the knowledge, skills, or maturity to ride bicycles safely in traffic and without supervision. Schools, parents, caregivers, camps, recreational centers, and communities are strongly encouraged to use the cycling skills clinic as **part of a process** towards enhancing bicycle safety. The safety principles and skills learned during a clinic need to be reinforced and applied beyond the confines of a blocked-off parking lot. The clinic is a stepping stone for the bicyclist who will need to apply judgment and refined skill when advancing to riding in neighborhoods, shared pathways, and in traffic.

Cycling Skills Clinic Purpose:

A cycling skills clinic is designed to be a fun educational activity for children of varying levels of bicycle riding experience. This clinic serves to:

1. **Educate:** increase knowledge about traffic safety and bicycling;
2. **Train:** transfer the knowledge to the practice of skills and decision-making while riding a bicycle; and
3. **Motivate:** energize and excite participants to want to learn more and to engage in bicycling.

Fall and spring seem to be the most popular times to offer clinics because the weather is more suitable for outdoor activity. However, during winter or summer, clinics can be held indoors using gymnasiums or recreation centers. Preparing children for safe riding is a project that many groups are willing to sponsor—parent-teacher associations (PTA's, PTO's), youth-centered organizations/clubs, public health agencies, law enforcement traffic safety groups, or emergency response professionals.

Effective Bicycle Education:

Learning Styles:

Cycling skills clinics apply four types of learning styles to teach bicycle safety: visual, auditory, tactile, and kinesthetic. Regardless of age, many people gravitate toward one type of learning or a combination of learning styles. Types of learning styles used in a cycling skills clinic include:

- **Visual** – the student learns best by ***seeing*** things in writing, in picture format, or by observing behavior.
- **Auditory** – the student learns best by ***hearing*** directions either by an instructor or via an audio tape.
- **Tactile** – the student learns best by hands-on experience including touching parts, pieces, material, etc., and performing the skill being taught.
- **Kinesthetic** – the student learns best by movement, actually performing the skill.

Active Learning:

Studies have shown that active learning increases the likelihood of knowledge retention. Many of us may recall sitting passively through a lecture one day, and then being unable to recall more than the basics the next day. Bicycling lends itself very well to active, hands-on, experiential learning.

Human Growth and Development:

On-bicycle and traffic safety training needs to be adapted not only to a child's actual age but also the child's growth and developmental level. Not all children of the same age have the same processing skills, gross and fine motor skills, or levels of maturity. For this reason, those working with children need to be flexible and creative, sometimes on the spot. Watch children's verbal and non-verbal cues (e.g., children who may appear bored or those who act out may actually be frustrated because they don't understand, and are compensating by using attention-seeking behavior).

One thing that most children have in common, however, is their tendency to take information very literally. Provided are a few real life examples related to bicycle and traffic safety and a child's perspective.

Example #1

Behavior

Volunteer tells the child to look both ways. The child looks up and then down. More desirable and specific instructions: The volunteer tells the child to look left, then right, then left for traffic. Volunteer demonstrates the behavior showing the child to slowly look to the left (and say "No cars coming"), then right (and say "No cars coming"), then left again (say "Still no cars coming"), then say "It is safe for me to go."

Example #2

Response to question

Volunteer asks the child who lives in a rural area: "Why do you think you need to signal with your hands?" Child's response: "So I think about which way I am going to turn." Volunteer: "Who else do you think you may need to let know which way you are going to turn?" Child's response: "Hmm, God?" Consideration: The child in this situation has little orientation to traffic in a rural environment.

Children are typically really excited about getting on a bicycle at a cycling skills clinic. People who work with youth on bicycle safety strongly recommend providing basic classroom education prior to on-bicycle skills at a clinic. This can be done on a separate day or the same day. Children are given a brief overview of bicycle safety principles or are shown a brief bicycle safety educational video. If time is limited, we recommend NHTSA's video, *Bike Safe. Bike Smart.*, which covers the rules of the road and the importance of wearing a bicycle helmet. This video is performed by middle-school-age actors, and is suitable for grades 3 to 8. Throughout the clinic, and after, reinforce that while bicycling is fun, bicycles are not toys.

In order to adapt cycling skills clinics to children's literal interpretations you should:

- Design the stations for practicing bicycle safety skills to look as much like the road as possible. For this reason, specific measurements are provided to scale, using tape or chalk-drawn lanes.
- Create actual traffic safety signs when possible, such as stop signs and yield signs, and use cardboard to create a representation of cars or motorized traffic.

It is important to reinforce to volunteers their roles in the learning process, especially when working with children. Not only do children's learning styles vary, but their understanding of safe bicycling is affected by their lack of experience with traffic. Volunteers don't have to be child development experts, they simply need to reinforce the safety concepts by verbalizing the desired behavior, demonstrating the desired behavior, and then reinforcing the desired behavior as the child practices in a safe environment. Finally, volunteers must remember that children take information very literally. Asking children to repeat what they heard can minimize some of what is lost when communication occurs from an adult's frame of reference to a child's.

Example #3

Parent versus child interpretation

Parent says to child walking or bicycling to school: "You're late—get going!" Child's interpretation and likely behavior: The child will focus on getting to school and likely not take into consideration ways to get to school safely.

Example #4

Parent versus child interpretation

Parent says: "Watch out for cars." Child's interpretation: The child literally looks for the presence of cars but avoids other traffic-related indicators, including traffic signs and signals, etc.

Use of Skilled Instructors:

Adults are role models; the best teacher is one who teaches by example. Have you been on your bicycle lately? Are you confident with basic bicycling skills? Many events are initiated by non-cycling adults; that's fine, but it's important that skilled cyclists are a part of the program. Enlist help from your local bike club, coalition, or shop. A listing of skilled cycling instructors throughout the country can be found at www.bikeleague.org. Many skills are easier to teach when demonstrated by experienced bicyclists. Consider developing a program that involves parents and other community adults as participants. By promoting bicycling with youth and adults, you're promoting a great way to get exercise and quality family time.

Thanks for Promoting Bicycle Safety!

Chapter 2

Organizing a Cycling Skills Clinic

Organizing a Cycling Skills Clinic

This event can be as simple or as elaborate as you have the resources to support. Your determination will drive planning, recruiting, and marketing decisions. One thing that most cycling skills clinics have in common is a limited budget.

This guide is based on the assumption that a nominal budget is likely. The guide also assumes that you are the established coordinator of the cycling skills clinic. This may mean that you will be:

- Responsible for the clinic, including planning, implementing, and evaluating with the help of a committee; or
- Using an outside group that will do this for you.

Regardless, you will likely establish a committee of people who represent the school, county, and city sponsoring the event. This committee is necessary to assure that you are:

- Meeting the needs of those requesting your services;
- Including key personnel to cover such things as administrative approval, marketing, public outreach, etc.;
- Receiving any additional input needed to make the cycling skills clinic a success; and
- Establishing a core group of volunteers committed to help out in the planning, implementation, and evaluation stages of the cycling skills clinic.

As the clinic coordinator, you may be given all the answers to the typical when, why, and who questions or you may be responsible for proposing and getting approval for: (1) the size, format, and target audience for your clinic; (2) the date, time, and place for your clinic; and (3) a timeline to guide you and others to planning needs leading up to the actual clinic; and (4) a method for selecting and establishing a planning committee.

Step One: **Determine the size, format, and target audience for the cycling skills clinic**

Step Two: **Choose the date, time, and place**

Step Three: **Establish a timeline**

Step Four: **Establish a planning committee with roles and responsibilities**

Step Five: **Explore and establish sources of volunteers and sponsors**

Step Six: **Market to the target audience**

Step Seven: **Conduct the event**

Step Eight: **Evaluate and provide after-action reports to appropriate people**

Step One: Determine the Size, Format and Target Audience for the Clinic

A. Size: Larger isn't necessarily better. Ask yourself the following three questions; the answers will help you decide the size of your clinic and will drive your planning process. The larger the event, the more planning and time are necessary.

1. **Do you want a small, medium, or large event?**
   - Small - targets a local group or single school with a very limited budget
   - Medium - targets a larger community with the public invited, but with a small budget
   - Large - targets a citywide audience with significant budget and publicity

2. **What resources are available?**
   - Good resources: supply of volunteers (30-50), supply of bicycles (30)
   - Limited resources: small number of volunteers (10), participants must bring their own bicycles

3. **What level of experience is on hand?**
   - Do you have experience running a cycling skills clinic?
   - If you have no experience you may want to start off small. Or, you may wish to seek out an experienced person (see Step 5, Establish Sources of Volunteers).
   - Alternatively, consider ways to build up some experience prior to the event. One way to do this is to start with a dry run with the planning committee. Adults can be assigned to be "kids" or you can gather children to help you practice the focus of each station and the flow of the event.

Regardless of the size of the cycling skills clinic, much of your effort will be spent in the planning and organizing phase. The time you spend on this phase will depend upon where you are in the planning matrix. You are strongly encouraged to decide on the size and format of your event well in advance. The planning, including recruiting volunteers and marketing of the event, takes time; the planning for the actual day is relatively simple.

B. Format: Establishes how the cycling skills clinic will be administered and is often based on numbers of participants, volunteers, and bicycles available.

1. **By Class: Small event –** can be offered as a physical education class running 12-30 participants through in a 45- to 50-minute period. Setup of the event may require several hours the day before, so plan around availability of the facility and the security between setup and the event.

2. **By Grades: Medium to large event** – can be conducted in 2-4 hours and can accommodate more children, such as all 4th graders (up to 100 participants at the same time) or as an event for all 4th and 5th graders, (100 to 200 participants at the same time) over a 2- to 3-hour period.

3. **By School: Medium to large event** – this can be as large as a community event, and take as long, but as the organizer, you can control how many participants and what ages come through. Further, marketing efforts are much simpler since students can take material home to parents in their backpacks, and participation does not have to be sought outside the school.

4. **By Community or City: Large event** – may be conducted over a larger span of time such as 4-5 hours, and could involve over 200 participants and adults of varying ages. The planning and organization for this type of event is more intense because it requires marketing to a community for participation. The organizing group may ask participants to sign up in advance, or participants may just show up. Large numbers of participants need to be considered with a large number of volunteers and experienced bicycle safety experts needed. It may require months of planning and significant time to set up. Getting permission to use a venue for hours may be challenging. Storage of bicycles at the site, when they are supplied, can create a need for increased security at the site.

Planning Matrix

	1	2	3
Size/complexity of event	**Small** (12-30 participants at one time)	**Medium** (35-100 at one time or staggered)	**Large** (100-300+ at one time)
A. Good resources	Focus primarily on: • Location • Date/time	Focus primarily on: • Location • Date/time • Marketing	Focus primarily on: • Location • Date/time • Marketing
B. Limited resources	Focus primarily on: • Location • Date/time • Recruiting	Focus primarily on: • Location • Date/time • Recruiting • Marketing	

Let's walk through a variety of scenarios you may encounter with your event; consideration and preparation will help you in the end.

- **Scenario 1A:** A trailer of bicycles and helmets with paid or volunteer instructors and helpers may lessen preparation time to less than a month. Many local bicycle advocacy groups are purchasing trailers of bicycles and providing cycling skills clinics as part of outreach to their communities. An event of this type is often done in a school parking lot or school gymnasium. A typical event of this type may be training for a Boy Scout troop or a physical education class, etc. If volunteers are

limited, limit how many children participate at any given time, i.e., space participants out. Limited marketing efforts are required because the audience is established, but reminders to school staff, parents, and students will be necessary.

Positive: Bicycles are well maintained, leaving greater time for participants to actually be on the bicycles.

- **Scenario 1B:** Parents and children bring their own bicycles and helmets to the cycling skills clinic. An event of this type is the same as in scenario 1A above except that costs must be minimized. Recruiting volunteers may become a significant effort unless you do these events regularly and have a core group to draw from. Because the children are bringing their own bicycles and helmets, more time will be used to obtain bicycle maintenance volunteers from a local bike shop. A few spare bicycles and helmets should be available in case a child doesn't have a bicycle or a helmet, or if the child's equipment is not suitable. Bicycle shops may accommodate such a request in return for free advertising, or your local police department may have access to abandoned or stolen bicycles it is willing to donate.

  Positive: A plus to this scenario is children can practice on their own bicycles and their helmets most likely will be properly fitted.

- **Scenario 2A:** If you are resource-rich and are reaching out to a large market, then publicizing the event becomes more important. You will have to choose a larger site to accommodate more participants and recruit more volunteers as well as paid staff. You should plan on spending at least 6 months planning an event of this type and working to attract sponsors who can defray some of the costs. To provide a full range of bicycle safety activities, you will need to have access to a large space, preferably providing both indoor and outdoor facilities. You will have to look for different ways to raise the public's awareness of the event to encourage attendance, including use of local media.

  Positive: Often these types of events are on the weekends so more parents can get involved.

- **Scenario 2B:** With limited resources, holding a larger event with only volunteer staff can be challenging. Recruiting becomes a significant effort and may not provide the numbers of adults needed to make the event successful. To provide a full range of bicycle safety activities, you will need to have access to a large space; you may wish to consider use of both indoor and outdoor space. Use local media, including radio stations, newspapers, and announcement flyers in schools, libraries, and recreation centers to get the word out if offered as a community event, and bulletin boards and backpack flyers if conducted for children during school. Signing up participants or grouping certain ages together with a pre-determined time slot can help significantly in terms of clinic layout and staggering participants to minimize wait time. Consider allowing students to participate during a physical education period. Consider

engaging parents, high school students looking for community service projects, college students, or young adult service organizations to volunteer their time.

Positive: Can use a relatively large number of children in a school setting to expose them to bicycle safety in a cycling skills clinic for all 4th and 5th graders.

- **Scenario 3A:** Citywide programs with more than 400 participants have been conducted. However, support is typically generated by corporate sponsors who encourage their employees to help pay for professionals to train and direct the volunteers. A large event requires at least 9 months of planning. The space necessary to hold a large event should include significant amenities such as rest rooms, water fountains, shade, and a large open space for the event layout and bicycle storage. Don't neglect to provide sufficient parking for those who drive to the event.

  Positive: You are more likely to also reach parents and caregivers.

C. Target Audience: Most often the target audience for a cycling skills clinic will be children, but you will need to consider your audience more specifically. Some considerations include:

- Will you be working with an entire school (multiple grades and ages)? Will you be working with a subset of the school such as just 4th and 5th graders? For example, will you be working with one class at a time during their scheduled physical education or health education class?
- Will the cycling skills clinic be part of a community event? If so, it is likely that parents will show up with children of varying ages. Will you have participants at a community event sign up ahead of time or come on a walk-in basis?
- The age of the participating audience will determine the skills to include in your course and thus your course layout. Children under 10 can go first and get finished faster. The course for younger children will be limited as compared to the course for older children. Older children may be more experienced riders and can be presented with additional challenges and potentially a neighborhood ride at the conclusion of the event. See the table below for an example of how the clinic may vary based on the target age. If your purpose is to reach 4th and 5th graders in a particular school, for example, you are likely to use all the stations and layout design of an advanced clinic.

Cycling Skills Clinics – Based on Target Audience Age

As we have indicated, not all clinics are the same. The general age of your participants may prompt you to modify the number and complexity of the skills you teach. If your cycling skills clinic is being run with younger children or with children with no bicycling experience, for example, consider the stations included in the basic or intermediate clinics shown below. The skills learned in the advanced clinic below, however, are not considered "advanced" bicycling skills. They are basic skills in bicycling, but children under 10 years old are not likely to have acquired the fine and gross motor skills needed to perform the tasks, and lack the experience necessary to apply traffic negotiation skills. The recommendations below do not take into account the need to adjust skills to be learned according to an individual child's developmental limitations.

Basic Clinic Recommended Participant Age 5+	Intermediate Clinic Recommended Participant Age 9+	Advanced Clinic Recommended Participant Age 10+
Check-In - Registration (Station 1)	Check-In - Registration (Station 1)	Check-In - Registration (Station 1)
Helmet Fit (Station 2)	Helmet Fit (Station 2)	Helmet Fit (Station 2)
Bike Fit and Inspection (Station 3)	Bike Fit and Inspection (Station 3)	Bike Fit and Inspection (Station 3)
Start and Stop (Station 4)	Start and Stop (Station 4)	Start and Stop (Station 4)
Station 5 Not Recommended for Basic Clinic	Avoid Hazards (Station 5)	Avoid Hazards (Station 5)
Scan and Signal (Station 6)	Scan and Signal (Station 6)	Scan and Signal (Station 6)
	Turn and Yield (Station 7)	Turn and Yield (Station 7)
	Enter a Roadway (Station 8)	Enter a Roadway (Station 8)
		Intersections (Station 9)
		Traffic Practice (Station 10)
Celebrate!		

Examples of clinic design using the basic, intermediate, and advanced stations (based on age only) are discussed further in the **Clinic Layout section, pages 20-24**. The layout will ultimately be determined by the amount of space available and the number of volunteers available to run the cycling skills clinic. Less space and fewer volunteers may mean you wish to double up on the skills tested at the varying stations.

Step Two: Choose the Date, Time, and Place

The date, time, and place for your cycling skills clinic may have already been determined by those requesting the clinic, due to school or community calendar constraints, or you may be making these decisions with approval from others. Either way, take a moment to review the tips below to make sure the following have been considered:

Date:

- Weekday events can work in school and after-school programs. This timing is particularly applicable for small single-school events. Weekend events can interfere

with other activities such as sports practice, lessons, or homework, but may be necessary for reaching a broader range of participants.

- A major community/citywide event would probably work best on a weekend morning.
- Determine the best time for your cycling skills clinic based on your particular community.
  - Use your school calendar if conducting your event during the school day, making sure you aren't scheduling during a conflicting event or holiday.
  - Schedule a community event in conjunction with community calendars/events, or see if yoæu can orchestrate your event in conjunction with another event.
- If you are conducting this event for school children during the school year, make sure everything is approved by the school administrative staff and documented in the school calendar. If you are offering the event in the community, be sure the date is approved and documented in the communitywide calendar.

Time:

- Spring and fall are great times for bicycle events outdoors; winter and summer events can be done indoors.
- Late in the school year works well for many school administrators, as it gives the teachers a fun event for the students. However, you may also want to consider conducting your event indoors during the winter months to prepare riders for the spring bicycling weather.
- The beginning of the school day, end of the school day, or lunch time may allow for greater availability of volunteers.

Place:

- Many cycling skills clinics are conducted on school grounds in a parking lot.
- Your cycling skills clinic does not have to be held outdoors. School or community gymnasiums are also suitable. If you schedule an outdoor event, consider either a rain date or an alternative location indoors so the event can go on as planned in the event of bad weather.

Step Three: Establish a Timeline

The coordinator should establish a preliminary timeline and plan to present this to the planning committee (see Step Four) for discussion and revision. At least a basic timeline is strongly encouraged so that the committee can consider where efforts need to be placed and to assist in the delegation of responsibilities. No matter how small the event, if volunteers, equipment, space, or approval of any sort is needed, a basic timeline is helpful. A helpful approach is to work backwards based on the actual date that has been selected for the cycling skills clinic. While the chart reflects months in the left hand column, you may set up your calendar to specify day, week, or month.

Sample Timeline:	Sample Tasks:
Three Months Prior	• Choose date, time, and place—obtain necessary approval. • Consider rain dates or alternative indoor locations for clinic. • Identify the planning committee. • Solicit volunteers and sponsors. • Check with local businesses and local service organizations about the possibility of donating handouts or prizes. • Check for availability of loaner bicycles of varying size. • Contact local bike shops or bicycle clubs for volunteers to conduct bicycle inspections.
Eight Weeks Prior	• Send letters to volunteers with date, time, location of event, and information on their duties at the event.
Six Weeks Prior	• Start marketing the event. For a small event you can market through the school, with backpack mail. For larger events, you'll want to use local media, including radio stations and newspapers and announcement flyers in schools, libraries, and recreation centers. Be sure to identify who is sponsoring the event. • Children should be reminded to bring their own bicycles and helmets if necessary. (Encourage participants to have their bicycles checked out for maintenance issues before the clinic,) If you are providing bicycles and helmets for use for participants that don't have equipment or in lieu of their own equipment, the flyer should indicate this. • Make a "floor plan" of the proposed site. If the site will not accommodate all stations, the cycling skills clinic will need to be modified or reduced in the number of stations offered. This would reduce the number of volunteers needed. • Establish a secure place for children to park their bicycles at school or at the event while registering or participating in non-riding activities. • Confirm with the bicycle shop to discuss any special assistance or needs. • Arrange for medical support, which may be as simple as the school nurse or may be as complicated as an emergency medical services truck on site.
Three Weeks Prior	• Make copies of material and signs, and gather all material needed for the clinic.
One Week Prior	• Have a meeting with all volunteers to explain the cycling skills clinic and how it will be conducted. • Give each volunteer a copy of the rules and directions. • If law enforcement officers or other organizations are volunteering, invite them to the meeting. • Answer questions and distribute site layout. • Check supplies to make sure you have everything. • **Note:** Be prepared to repeat the briefing on the day of the clinic for those who did not attend the meeting and to make sure all questions are answered prior to starting the clinic.
Day Before or Hours Before the Clinic	• Set up tables/chairs • Draw or tape the design each of the stations and flow. • Put station signs up • **Note:** Weather conditions may determine when you set up your clinic. If, for example, there is any possibility of rain the night before, the use of chalk to draw the station design is not suitable.
Day of Cycling Skills Clinic	• Be flexible. • Be prepared. • Have fun!
After the Cycling Skills Clinic	• Meet with volunteers to get feedback about the event and gather suggestions for improving the process for the next event. • Provide a summary report to the sponsoring group of the event. • Send thank you notes. People appreciate a written acknowledgement for their efforts.

Step Four: Establish a Planning Committee, Roles, and Responsibilities

Three questions will need to be addressed in this step:

1. Who will make up the planning committee for the clinic?
2. Who will provide the services for the clinic? Will the committee run the clinic or an outside resource be hired?
3. What are the roles and responsibilities for the planning the clinic?

Planning Committee: Chances are if you are reading this, you are the coordinator of the planning committee and you will be in charge of selecting the members of the committee. As the lead of the planning committee, you will be responsible for keeping those who requested the cycling skills clinic informed (i.e., the school administrator, principal, a PTA board member, the Chamber of Commerce, or civic associations, local businesses, etc.).

Who Will Provide the Services for the Clinic: Some groups offer a service to run cycling skills clinics at varying costs, such as Kiwanis clubs, insurance agencies, etc. Such groups bring in experts to do specific aspects of the clinic: a local bike shop or bicycle advocate group for the helmet fit and maintenance, or law enforcement officers to provide bicycle registration, etc. Other clinics are completely run by bicycle advocate groups or individuals who coordinate the entire effort. Only you can decide which direction your clinic will go. If an outside organization is being used to coordinate the clinic, a planning committee may not be needed.

Roles and Responsibilities of the Planning Committee: The coordinator is responsible for facilitating the management of duties necessary to enable the clinic to run smoothly. The duties include such things as:

- Recruiting volunteers
- Generating sponsorship
- Arranging for storage of equipment (bikes, helmets)
- Coordinating with school or event planner
- Determining marketing efforts
- Distributing and collecting parental consent forms
- Reproducing handout materials
- Purchasing drinks and snacks for volunteers
- Purchasing materials needed
- Setting up
- Cleaning up

See Appendix B for Sample Checklists

Step Five: Establish Sources of Volunteers, Sponsorship and Logistics

Volunteers:

- Volunteers are vital to the success of cycling skills clinics.
- Frequently law enforcement officers, fire departments, emergency service providers, or school nurses like to take part in cycling skills clinics. They have a powerful incentive to work on public safety events— they want to help community members prevent injuries and fatalities caused by bicycle crashes. Anyone would prefer taking part in preventing injury than responding after the fact. The ultimate goal of this interactive educational experience is the prevention of bicycle crashes.
- Many local organizations or clubs like the Rotary, or Kiwanis, for example, participate in such events.
- Use parents as volunteers whenever possible to give them additional exposure to the safety messages. Children only have a short exposure during the event, so it is important that parents and other adults reinforce the messages with children after the event.

See Appendix I for Take-Home Tips

- Sources of Volunteers:

Community service organizations
Faith-based organizations
Schools
Fire departments
Police departments
Health departments
Hospitals or rehabilitation centers
Driver education teachers
Libraries
Nearby businesses or local or State agencies
Bike shops
Cooperative extensions, 4-H
Parent–teacher organizations
Emergency medical services
Pediatricians, family practice providers
Injury prevention advocacy groups
Bicycle clubs or coalitions
Girl's or boy's clubs or scout programs
*League cycling instructors

* League cycling instructors are certified instructors through the League of American Bicyclists

Sponsorship:

Enhance your program and save some money. Identify sponsors willing to cover the cost of promotional material, supplies, ribbons, prizes, or refreshments, etc. For ideas of potential sponsors, review the list of sources of volunteers above. While these same groups may not be in a position to offer volunteers, they may be seeking tax write-offs and be interested in providing monetary support towards your effort.

Logistics:

- Storing equipment: determine where children will lock/store their bicycles and helmets.
- Setting up: explore options for where the clinic will be laid out, how it will be laid out, and back up plans for poor weather conditions if the clinic is scheduled for outdoors.

Step Six: Market to the Target Audience

All the work in the world won't make your event effective if you don't have participation. So… who do you need to market the event to?

- For small, single-school events, publicity or parent awareness is normally done via the typical means of communicating with parents: backpack news, e-mail listservs, phone trees, posters, parent/teacher meetings, and through the children themselves. Multiple reminders of the upcoming event are strongly encouraged.
- Larger events many require advance notice in neighborhood newsletters, bulletin boards, Web sites, and e-mail lists. Posters and yard signs can be effective if well-designed and displayed in local gathering places. Grocery stores, libraries, schools, and places of worship are all good locations to reach large groups. Many radio stations will provide free listing of community events as will newspapers and some television stations. Cable providers may have local access channels that list events of this kind.
- For citywide events, publicity should start months in advance and be widespread. In addition to the avenues mentioned above, a local utility company may be willing to provide access through its billing system to announce an event of this type. Press releases to local newspapers and radio and television stations are appropriate. Handouts at other local events can help publicize the event. The school district may be willing to announce and support a major event with publicity, volunteers, and venues for a citywide event.
- Tell participants what to wear so they are comfortable for the activity (shorts, sweatpants, tennis shoes).
- Tell participants to bring their bicycles and helmets if the items are not being provided.

While the target audience for cycling skills clinics is typically children, parents/caregivers must be considered as well. In particular, materials need to be given to the parents/caregivers to:

1. Provide enough information about the clinic, such as what it is, what they will be doing, what is expected, what the child will learn, etc., so the parent/caregiver feels comfortable signing the parental release form allowing the child to participate.
2. Reinforce the desired safety messages. It is not uncommon for the children to be clear on the safety messages, only to have it undermined by parents, grandparents, or other adults who grew up with a different set of rules. In addition to participants, adults are critical to reinforcing your safety message. If you opt to have the event as part of the school day, many parents or guardians may not be able to attend, but you are most likely to capture all the students you are seeking to reach. Send participants home with handouts that identify key safety messages you wish the adults to model and reinforce.

Step Seven: Conduct the Event

Volunteer Orientation: Each volunteer should be very clear on the purpose of the station they will manage, as well as a general familiarity with the activities taking place elsewhere. Orient volunteers to the objectives and procedures of the stations prior to the day of the event. When all the stations are set up, volunteers should be given a general overview of the entire course and setup. Take a moment ahead of time to teach your volunteers what to look for when helping the participants at each of the stations.

Volunteer Handouts: On the day of the event, give each volunteer the associated content that explains the volunteer's station. ***Be prepared.*** It is not uncommon for someone not to show and for you to have to move people around or find a substitute at the last minute. The volunteer handouts should be detailed enough to serve as an orientation for someone serving as a last-minute substitute (**Chapter 4 – Cycling Skills Clinic Stations**).

Step Eight: Evaluate and Compile After Action Report

Assuming the cycling skills clinic will be desired year after year or more often throughout the year, it is important to take the time to review and write down what went well and what you or others might do differently to enhance the next clinic. As the clinic organizer, your perspective, as well as those of your committee, volunteers, participating parents, and the kids will be valuable. Read **Appendix P** for evaluation factors to consider during the process.

Feedback can be collected through a combination of a paper evaluation, a debriefing with workers at the end of the clinic, or from asking or listening to comments as the clinic is happening. The more feedback received, the better determinations can be made for what went well, what didn't go so well, and areas for improvement. The information you gather in your evaluation will be essentially the same whether your evaluation yields an informal report for your own files, in case you offer a cycling skills clinic in the future, or a more formal report, which is given to the sponsoring group who hired you or asked you to run the program. At a minimum, your evaluation should generate the following information:

See Appendix Q for Evaluation Clinic

- Who participated: number, ages, school, and any other information about the participants or families;
- An overall sense of how things went: the flow, the organization, anything you learned that would make a clinic go better next time, or what went well that you want to do again;
- Recommendations for planning future clinics; and
- A summary of the perceived value of the event based on feedback from volunteers and participants.

A worksheet is provided in **Appendix Q** to assist you in gathering this information. Some of the questions and answers should be considered before, during, and after your cycling skills clinic.

Clinic Supplies Needed

Helmets:

Every child who participates in the event MUST wear a helmet. You may encourage or require that all children wishing to participate bring a helmet from home or notify someone in advance if they don't have one. Arrangements should be made for all children to participate through the use of a loaner helmet, discounted helmet for sale, or free giveaway. The Bicycle Helmet Safety Institute offers a consumer resource for the purchase of inexpensive helmets, see http://www.bhsi.org/cheapies.htm.

Surgical or Shower Caps:

A barrier over each child's head is needed only if helmets are to be shared. This prevents the transmission of communicable diseases like lice, a relatively common occurrence in school-age children. Contact your local hospital or medical supply agencies to secure surgical caps that each child borrowing a helmet should wear prior to putting on the helmet. Paper towel sheets may be used as a substitute if surgical caps cannot be obtained.

Certificates:

Children love receiving acknowledgement of their accomplishments; each child should receive a certificate of completion at the end of the event (see sample certificates in **Appendix H**).

Progress Cards/Hangtags:

Each participant should be given a progress card. Consider punching a whole in the card and attaching it to the child's bicycle with an elastic band. This will allow easy access to the volunteer at each of the stations who must initial and comment, if needed, upon completion of the station (see samples in **Appendix H**).

Bicycles:

Determine in advance if participants will bring bicycles from home or if you will be providing them. Note: Some schools or bicycle coalitions have bicycles that can be loaned. Ideally some bicycles should be available so as not to exclude those who don't own bicycles.

Refreshments:

At a minimum, provide water for the participants and volunteers, especially if the event is during a warm season.

Prizes:

Local sponsors may want to contribute special bicycle equipment, such as reflective clothing, bicycle helmets, front and back lights, bells, etc. to be used as prizes.

Other:

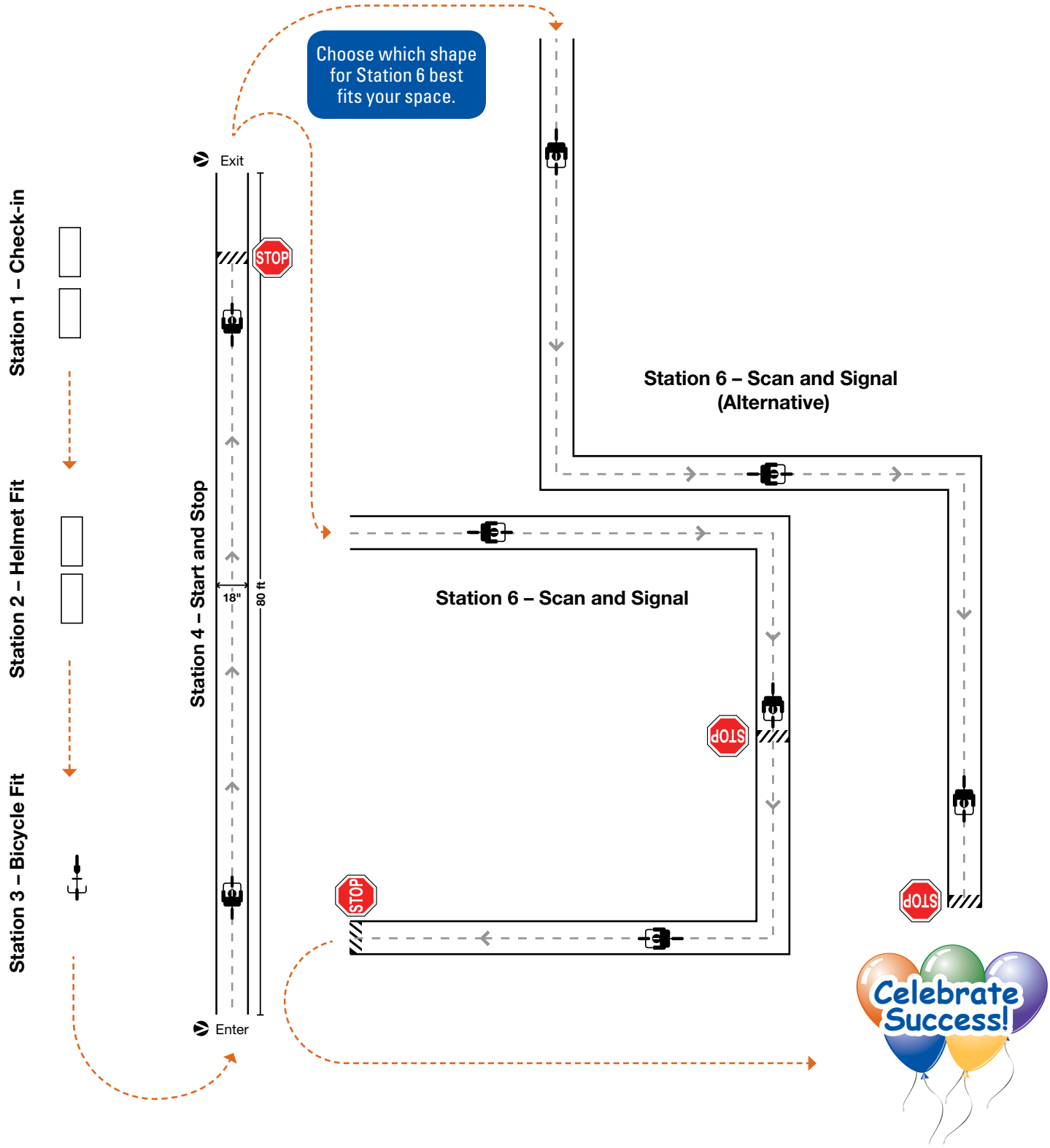
- Registration tables
- Chairs
- Station signs
- Name tags for volunteers
- Pens, pencils, and thick and thin markers
- Clip boards
- Parental release forms
- Elastic bands
- Firstaid kit
- Basic bicycle maintenance tools and tire pump for inspection station
- Extra sizing pads for helmet fitting
- Traffic cones, colored masking tape, sidewalk chalk, halved tennis balls or sponges to mark the course
- 100 foot tape measure
- Cooler for cold water/drinks
- Provision for a shaded area such as a tent (optional)
- Communication devices, such as two-way radios, cell phones, announcement system (optional)
- Reflective stickers
- Sunscreen
- Tent covering if no shade is available

Clinic Layout

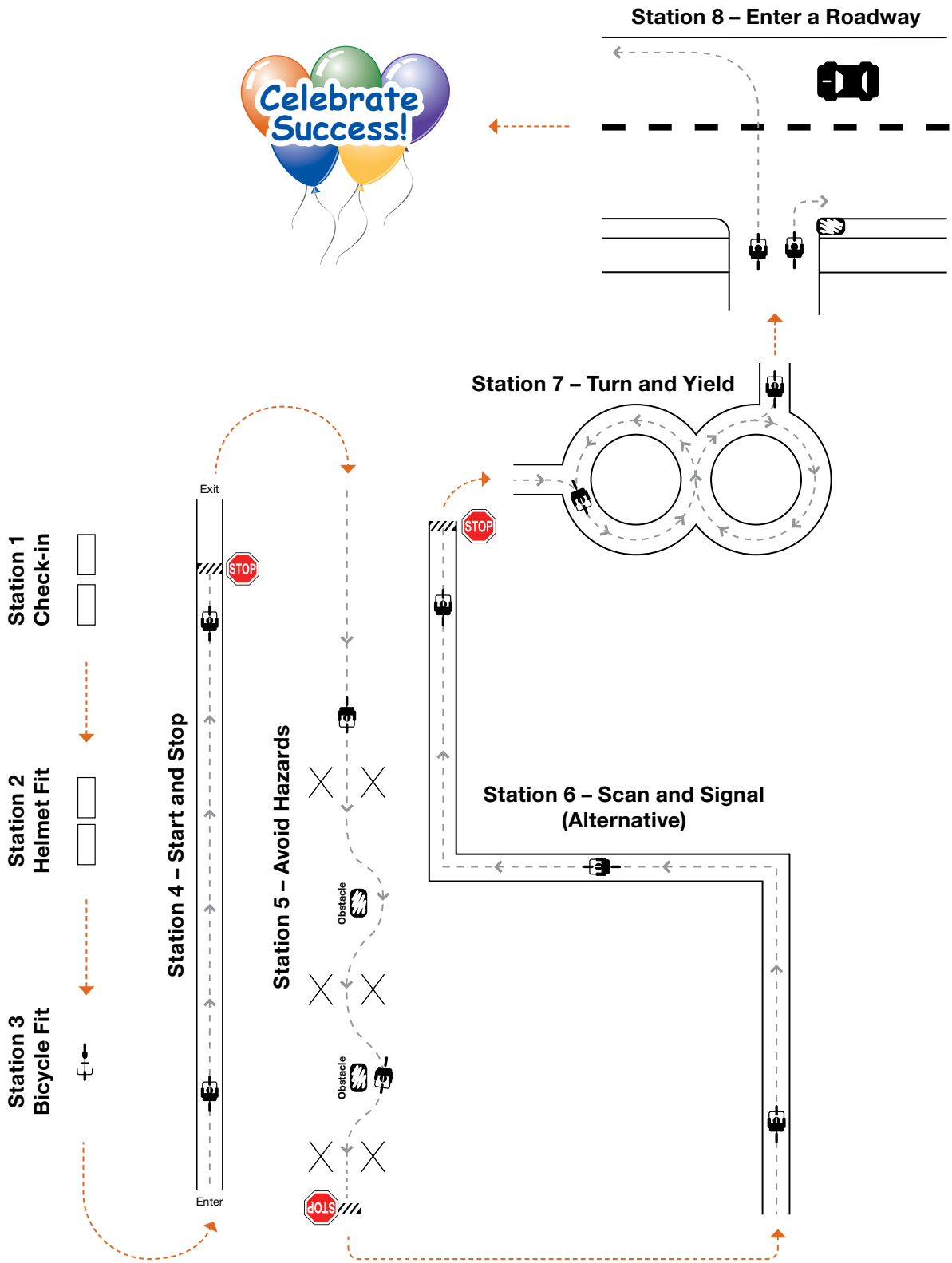
- For a small event, the different stations can be easily developed by one or two people in less than an hour assuming the surfaces are clean and free of debris.
- For a large event, a more formal layout is suggested to ensure that participants flow through the stations in an orderly manner. If possible, the layout should be completed well in advance so the volunteers can be trained on the actual stations prior to the event.
- Clinic layouts may vary according to how big your event and how much room is available. Recommended measurements are provided for the different stations in **Appendix L**, and every effort should be made to design the course to scale. Why? Children are literal learners. Each station is designed to represent a real situation including the size of a lane, intersection, driveway, etc. The more realistic, the better the participant can learn and practicing the skill to ensure their overall safety.

See Appendix L to create your own Clinic Layout

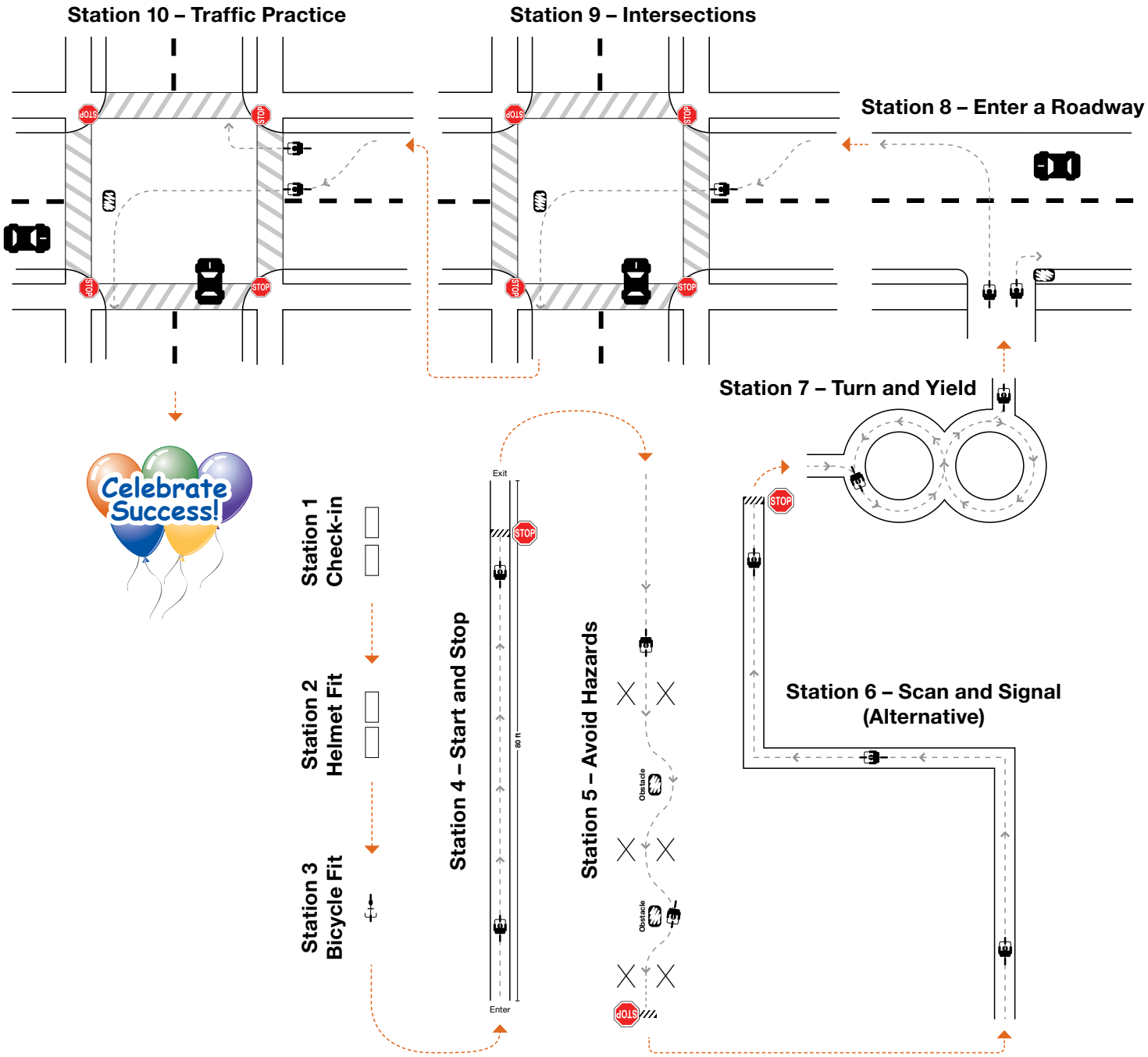
Basic Clinic Sample Layout



Intermediate Clinic Sample Layout

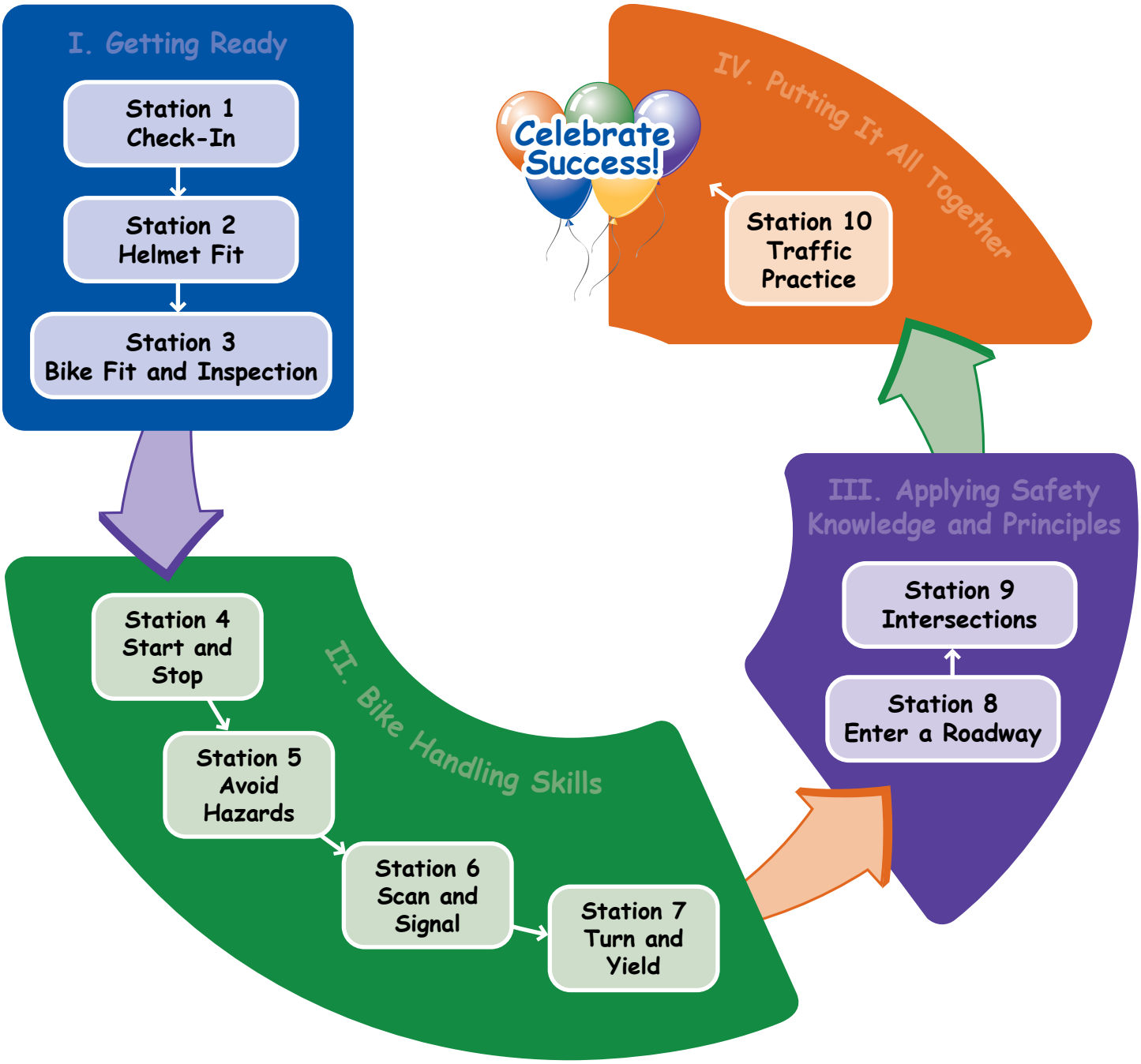


Advanced Clinic Sample Layout



Typical Cycling Skills Clinic Flow

The purpose of this diagram is to emphasize the importance of traffic flow and sequence of the stations. Flow gives not only a sense of order, but enables participants to build on previously learned and practiced skills.



Chapter 3

Clinic Organizer's Summary

Clinic Organizer's Summary

This overview provides the organizer with a brief discussion on preparing volunteers to carry out assigned tasks and the stations recommended for a cycling skills clinic. Each station setup and activity is broken down into greater detail. All volunteers should receive a copy of the detailed instructions for the station they are overseeing, so they can do a final check on the supplies and layout and become familiar with the flow of the station before the event begins.

Volunteer Orientation

Each volunteer should be very clear on the purpose of the station they will manage, as well as a general familiarity with the activities taking place elsewhere. Orient volunteers to the objectives and procedures of the stations prior to the day of the event. When all the stations are set up, volunteers should be given a general overview of the entire course and setup. Take a moment ahead of time to teach each of your volunteers what to look for when helping the participants at each of the stations.

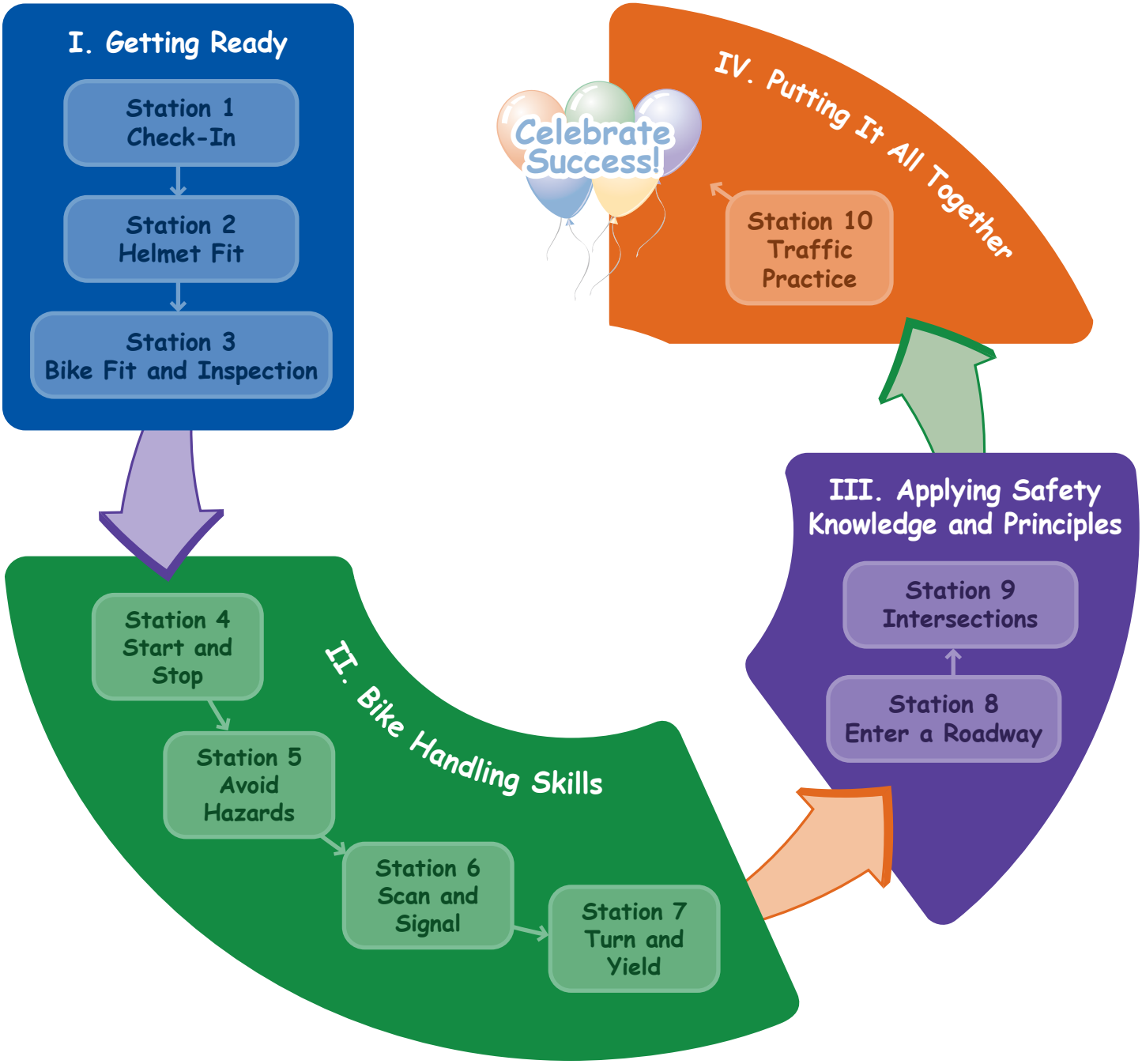
Be prepared. In the event that a volunteer is absent, you may have to move people around or find a substitute at the last minute. Handouts should be given to each station volunteer and should be detailed enough to provide an orientation to a last-minute substitute.

The Basic Essentials

The cycling skills clinic has four areas:	Associated stations:
I. Getting Ready	Check-in; Helmet Fit; Bike Fit and Inspection
II. Bike Handling Skills	Start and Stop; Avoid Hazards; Scan and Signal; Turn and Yield
III. Applying Safety Knowledge and Principles	Enter a Roadway; Intersections
IV. Putting It All Together	Traffic Practice; Celebrate Success

Typical Cycling Skills Clinic Flow

A clinic has to be set up based on the space available. This makes the ***look*** of each clinic potentially different.



I. Getting Ready

To reduce the confusion and potential liability inherent in running a children's event, the first three stations are critical: check-in; helmet fit; and bike fit and inspection. Each station should be staffed with competent adults who can calmly move people through the process and answer most questions. Stations 1, 2, and 3 require a great deal of organization because they are the stations that will determine the organization of your entire event.

It is at these stations that you are likely to have a backlog of participants ready to get engaged and do something. This may be a great place to provide the students with a bag (write their names on it) and engage both the students and their families in a bicycle safety game or bicycle safety video while they wait. You may wish to send students home with registration forms prior to the event and bring them back for review at the check-in table. If you do this, make sure you have blank copies available in case children forgot to bring their forms from home.

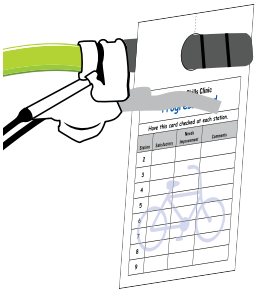
Station 1: Check-In

At check-in, volunteers will:

- Confirm that each child turns in or has a release/waiver signed by a parent or guardian. See samples in **Appendix D**.
- Identify the children who need helmets or bicycles if necessary.
- Label and attach the progress cards, see **Appendix H** for samples.
- Engage children and their families in watching a bicycle safety video or taking a fun quiz, see **Appendix F** if they have to wait in a line, or include this as the standard for your cycling skills clinic.

The National Highway Traffic Safety Administration recommends the following three videos: "How to Properly Fit a Bicycle Helmet," "Ride Smart. It's Time to Start," and "Bike Safe. Bike Smart." For copies contact NHTSA at 888-327-4236 or send an e-mail to http://nhtsa.gov/nhtsa-dpmextn/jsp/email/email_nhtsa.jsp.

Each progress card should be pre-punched with an elastic band attached prior to the event. At the event, volunteers will only need to write in the child's name and attach the elastic band to the bicycle handlebars. Volunteers will fill out the progress card as the child completes each station.



Station 2: Helmet Fit

At this station participants will be:

- Assessed for proper fit and adjustment of a personal bicycle helmet; or
- Fitted with a suitable loaner bicycle helmet and provided with a necessary barrier (surgical cap, shower cap, or painter's cap); or
- Fitted with a donated helmet for the child to keep.

Newer helmets on the market are relatively easy to adjust if they are the right size to begin with. Children's heads vary in size and shape, so parents should be advised to shop for different brands if necessary to find the right fit. Prior to the event, volunteers should be trained on how to fit a bicycle helmet. Refer to either the step-by-step handouts (**Appendix O**) or the video instruction provided by NHTSA.

You may choose to show the video instruction of how to fit a bicycle helmet, available on DVD at no cost from NHTSA. To order call NHTSA at 888-327-4236 or send an e-mail to http://nhtsa.gov/nhtsa-dpmextn/jsp/email/email_nhtsa.jsp.

Common challenges with helmet fitting:

- Check that the helmet fits snugly; the helmet should not rotate easily side to side or front to back. The helmet should not fall off when the child bends over even with the chin strap undone.
- If the helmet is loose, adjust the strap in the back to fit.
- If the helmet does not have an adjustable strap, use pads provided with the helmet to achieve the proper fit or use a smaller helmet if available.

If it is impossible to get a good fit, use a different helmet if one is available. Have some loaners available for children whose helmets are damaged or don't fit properly. See a discussion of how to keep loaner helmets clean in **Appendix N**.

Common errors with wearing a helmet:

- Helmet is too far off the forehead.
- Helmet is too large.
- Helmet is on, but not buckled.
- Helmet is buckled too loosely.

This station can cause a backup unless you have the station staffed with trained, experienced helmet fitters. We recommend at least three volunteers seated in chairs; the seated position allows the child to stand in front of the volunteer. Consider having participants fill out the fun quizzes in **Appendix F** if you are backed up.

Station 3: Bike Fit and Inspection

Children should not be allowed to ride on unsafe bicycles. At this station a bicycle mechanic will check the participant's bike for:

- Proper fit and adjustment of seat and handlebars;
- Safety of the bicycle to ride; and
- Need for basic repairs and adjustments including inflating tires, lubing chains, and tightening bolts.

Use the Bicycle Inspection Form to check each child's bicycle. Any additional repairs should be marked on the form and sent home with the child (**see samples in Appendix E**). Notice should be given to parent/guardian of need for repairs at a bicycle repair shop.

> You will need at least one competent bicycle mechanic to oversee your volunteers. Hopefully a local retail bike shop will be willing to support your event by providing a trained mechanic who can bring tools and a work stand.

II. Bicycle Handling Skills

Before a child is allowed to proceed into the more advanced parts of the event program it is important to evaluate his/her skill level and also to give him/her refresher practice on bicycling handling skills. The first set of stations provides safe and simple practice drills to assess the skill level of the participant and provides important handling practice for those whose skills are not fully developed.

Station 4: Start and Stop

At this station the participant will practice to increase comfort, ability, and skill with:

- Starting; and
- Stopping.

Slow-speed operation can present special handling issues for the inexperienced cyclist. It is important that they learn to start and stop with confidence and ride a straight line without wobbling or weaving.

> - All stations add a skill and repeat the skill learned at the previous station.
> - It is strongly recommended that each of the activities in the bicycle handling skills stations (Stations 4-7) be completed at least three times if time allows. Since many children are anxious when learning something new, practicing the new skill repeatedly allows children to experience some level of improvement in their performance.
> - Remember, the goal of the cycling skills clinic is for participants to have fun while learning; every child should feel successful rather than frustrated. To minimize frustration for those children experiencing difficulty, adjustments to expectations at one or more of the stations may need to be made. Restraint in adding skills or participation in stations that are beyond a child's level of performance might be a consideration.

Station 5: Avoid Hazards

At this station the participant will practice:

- Maneuvering around items in the roadway; and
- Maintaining control of the bicycle.

Most bicycle crashes do not involve automobiles. Dodging hazards that can divert a wheel or puncture a tire can save bicyclists from serious falls on the sidewalk or in the road.

Station 6: Scan and Signal

At this station the participant will:

- Understand the importance of scanning for traffic and for roadway hazards;
- Practice the skill of looking over each shoulder, while maintaining balance and a straight line;
- Demonstrate hand signals; and
- Understand the importance of signaling in roadway safety.

To successfully negotiate sidewalks and roadways a rider must be able to scan and signal before merging or turning. This exercise provides some basic practice in these activities and allows for an evaluation of the cyclist's ability to maintain control of the bicycle during these maneuvers.

Station 7: Turn and Yield

At this station the participant will learn and demonstrate:

- Proper roadway positioning for left hand turns; and
- Yielding and right-of-way rules of motorists, bicyclists, and pedestrians.

Multiple turning actions in quick succession can unbalance an inexperienced rider. One of the first rules of good traffic behavior is to yield to the vehicle on the right. This exercise provides practice in both of these areas.

III. Applying Safety Knowledge and Principles

Young children and even youth into their teens have limited exposure to the simplest traffic rules and laws. This section is designed to introduce or reinforce the application of safety principles to children including the laws and rules that govern movement on sidewalks and streets. The intent is for bicyclists to learn and become a predictable part of the traffic flow. The most ideal way to offer the final three stations is on a section of a street closed to traffic by law enforcement officers. This makes

bicycling in traffic more real to the children. Not everyone, however, will have this opportunity. Ensure then that your "roadway" resembles a roadway using the measurements provided in the layout examples.

Additionally, while this is clearly a bicycle safety event, many seasoned bicycle safety instructors and community educators weave in pedestrian safety messages in their education and skills practice. Entering a roadway, for example, is a perfect opportunity to reinforce what many students learn in K-3, but may have forgotten or disregard in practice.

Station 8: Enter a Roadway

At this station the participant will demonstrate:

- Slow and purposeful assessment of traffic before entering the roadway; and
- Stopping at the second edge and its application.

The highest incidence of bicycle fatalities among children occurs when a child rides into the road mid-block. Frequently this occurs at the end of their own driveway where they are familiar with the neighborhood and not as alert as they would be in a less familiar area. Young children, in particular, often look quickly and don't remember to make a conscious effort to look for traffic. For example, a young child is taught to look left, right, and then left for cars. It is not unusual for preschoolers to move their heads quickly left to right almost as if shaking the head "no." Multiple drills reinforce the "look both ways" activity and make the "stop at the edge" message clear.

As part of the educational message at this station, reinforce to participants that they should:

- Stop at end of driveway and slowly look left – right – and left again for traffic before entering the roadway.
- Stop at the second edge as well. For a bicyclist, an example of stopping at a second edge is when the bicyclist must stop at the stop line in a roadway, but they can't see traffic; in order to best see, the bicyclist must move forward a bit, stop again and look left-right-left. For a pedestrian, an example is when the child stops at a curb to look for traffic but there is a parked car present; the child will need to move just in front of the car, stop, and look left-right-left for traffic again, before proceeding when clear.
- Apply the same behavior when advancing from a traffic sign or signal.

Station 9: Intersections

At this station the participant will:

- Practice the safest techniques for negotiating right-turn, straight, and left-turn travel at a typical intersection.

Crash reports and self-reporting indicate that most crashes resulting in injuries or fatalities result from unsafe decisions made by either bicyclists or motorists. Many of these crashes occur at intersections and are associated with the bicyclists or motorists turning.

IV. Putting It All Together

Knowledge without practice is frequently lost. This optional "traffic simulation" section of the event layout is designed to allow participants to practice the bicycle handling and decision-making skills they have learned earlier. It provides a safe place to practice making safe choices in simulated, complex traffic situations.

Generally children older than 9 get the most out of this simulation. Younger children should be allowed to participate but in separate groups from the older children.

Station 10: Traffic Practice

At this station the participant will ride in a pattern that allows the participant to incorporate all the skills learned, including:

- Starting
- Stopping
- Determining the right-of-way at stop signs
- Dodging hazards in the roadway
- Scanning for traffic
- Turning at intersections
- Turning left at an intersection
- Yielding to traffic

In addition to volunteers to work positions around this station, you will need at least one mature rider to simulate traffic by "riding" in close proximity to the participants and providing verbal support or direction as the participants navigate the station. Illustrations of vehicles can be expanded, printed, and mounted on the front of a bicycle (or worn) to help participants visualize motor vehicle traffic (**see Appendix K**).

Celebrate Success

This can be offered as a separate station or area or combined with Station 10 if space or volunteers are limited. Each child and accompanying adult should have an opportunity to celebrate the successful acquisition of knowledge and cycling accomplishments of the day. Signing of the progress card and presentation of a certificate, safety tips and other "goodies" is a great way to top off a child's feeling of accomplishment and enjoyment.

Don't Forget!

- Children have different learning styles.
- Learning is best when children are actively involved.
- Children are literal learners.

(For more detailed information, see pages 3-4 of this guide.)

Station Setup and Intent

The following describes information related to each station. While Chapter 3 (the Clinic Organizer's Summary) lists materials needed for the entire event, Chapter 4 (Cycling Skills Clinic Stations) offers reference sheets (volunteer handouts) that elaborate on each of the stations. Volunteers should be given a copy of the sheets related to their assigned stations to enhance their understanding of their roles and to ensure that their stations are appropriately set up and ready. Each station will have a sheet describing:

- Station objective;
- Station description;
- Traffic safety implications of the experiential learning;
- Equipment and supplies needed;
- Approximate time to complete the station;
- Staffing recommendations; and
- Procedure.

As the organizer of the clinic you may choose to provide each volunteer a full package of the following handouts, or simply the handouts to their assigned stations. Giving a full package to each volunteer gives them all the references they need should you have to move volunteers around at the last minute or at any time during the clinic, while giving handouts for only assigned stations limits printing costs.

Chapter 4

Cycling Skills Clinic Stations

Station 1 Check-In

Basic
Intermediate
Advanced

Registration/Greet Area

Station Objective:

- To orient and prepare the participant and family member for the bicycle safety skill event activity.

Station Description:

This station is the welcome and distribution point for all information and should be positioned prominently. At this station, participants and family members will receive an overview of what will happen at your Cycling Skills Clinic. All parental waivers must be signed and completed here before participants engage in any activity.

Alternatively, you can send take-home packets with children one or two days before the event and use the event to collect the forms. Forms should be reviewed for completion and accuracy.

If space for tables or volunteers is limited at your clinic, this station can also serve as the distribution area for certificates of completion and take-home material.

Traffic Safety Implications:

Parents should not assume that since their children have participated in a bicycle safety clinic, they now are cleared to bicycle alone or know how to bicycle safely.

Many parents and caregivers do not know safe bicycling behavior. As such, they should be encouraged to attend the event with their children to learn more. Parents need to reinforce traffic safety behaviors when their children bicycle, as well as be role models when bicycling.

Equipment and Supplies:

- Station signs
- Tables (1-2)
- Chairs (2-3)
- Clipboards

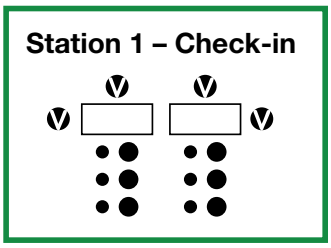
For those children who do not have parents or caregivers present, handouts should be sent home that review and encourage reinforcement of basic bicycle safety principles.

- Pens
- Release statements
- Progress cards (pre-punch and attach rubber bands); attach to each participant's bicycle handlebars
- Other: If it is a hot day, water should be available for volunteers and participants. If it is cold enough for volunteers to wear coats, consider providing coffee or hot chocolate for the volunteers.

The number of tables and chairs for volunteers should be selected based on the expected crowd. Assume that up to three sign-in lines can be accommodated at each 6-foot table. Allow more tables, chairs, and volunteers than you think you need to keep the lines to a minimum.

Station Staffing:

One station leader and 4-10 assistants, depending on anticipated number of participants.



See Appendix L for Station Legend

Time:

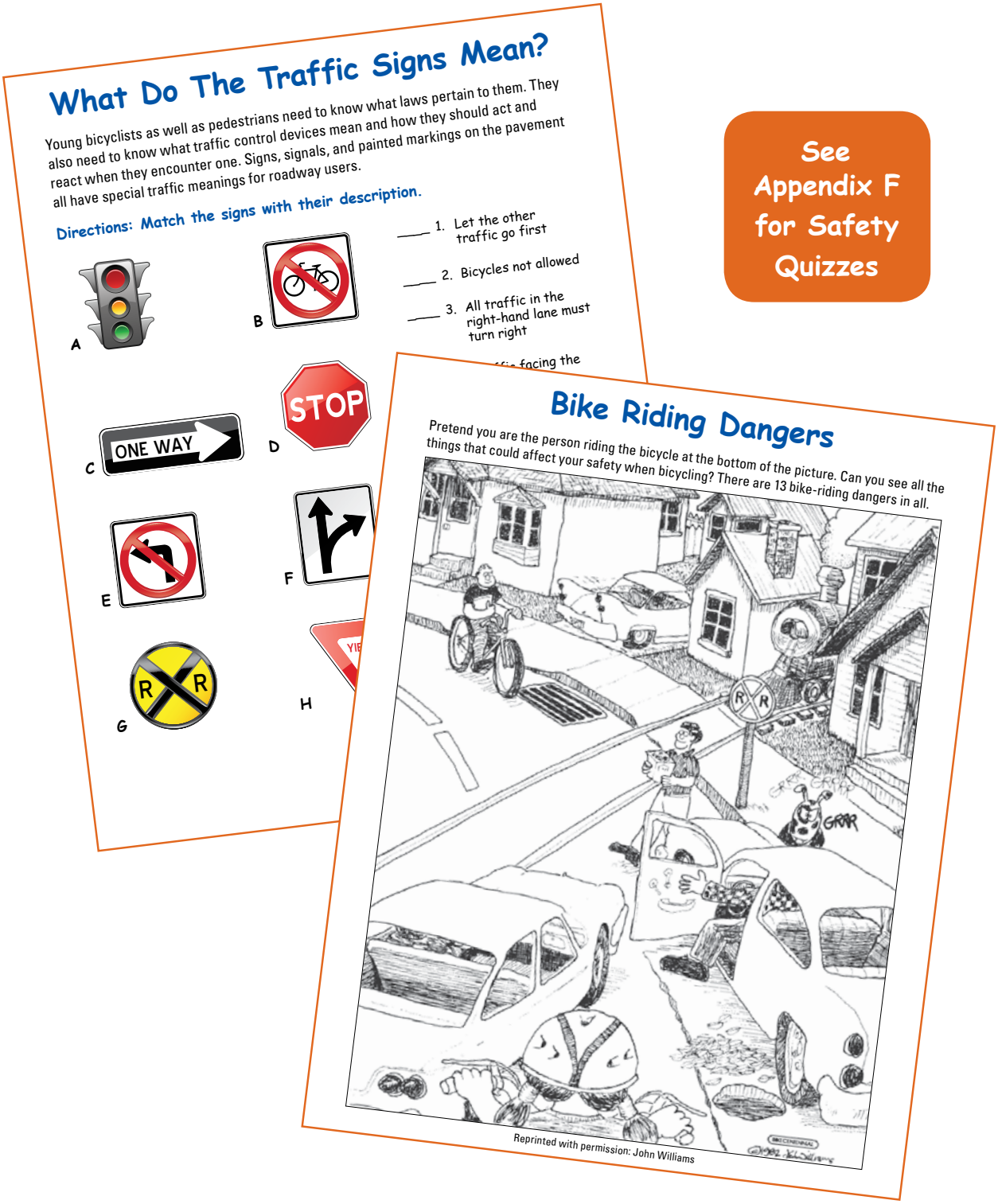
3-5 minutes per group (6-12 participants).

Procedure:

- As volunteers at the Welcome Station you are a major part of making this an enjoyable experience for the children and their families. Please be happy and upbeat and greet everyone with a smile and cheery welcome.
- The first part of your job is to make sure tables and chairs are set up to ease the flow of people to and past your station.
- Each child is required to turn in a waiver form signed by a parent or guardian. If you have clipboards and ballpoint pens, waivers can be handed out to people who are waiting in line to keep the process moving.
- Volunteers at the station:
  - Review forms to assure completeness.
  - Write the child's name on the top of a progress card or form and instruct the child to present it to a volunteer at the end of each station for check-off.
  - Direct the participants to the helmet station. Reinforce that the child must wear a properly fitted helmet in order to participate in the rest of the activities.

Optional Activities: Quizzes

Minimized versions of two fun quizzes are provided in this section for quick review. Full-size versions are located in **Appendix F**. These activities can be used to keep the participants engaged if there is a backup in the line at this station.



What Do The Traffic Signs Mean?

Young bicyclists as well as pedestrians need to know what laws pertain to them. They also need to know what traffic control devices mean and how they should act and react when they encounter one. Signs, signals, and painted markings on the pavement all have special traffic meanings for roadway users.

Directions: Match the signs with their description.

A B C D E F G H

____ 1. Let the other traffic go first

____ 2. Bicycles not allowed

____ 3. All traffic in the right-hand lane must turn right

Bike Riding Dangers

Pretend you are the person riding the bicycle at the bottom of the picture. Can you see all the things that could affect your safety when bicycling? There are 13 bike-riding dangers in all.

Reprinted with permission: John Williams

See Appendix F for Safety Quizzes

Station 2 Helmet Fit

Basic
Intermediate
Advanced

Station Objectives:

- To explain and demonstrate the proper fit and way to wear a bicycle helmet.
- To encourage a child to get in the habit of wearing a properly fitted bicycle helmet every ride.

Station Description:

This area is where helmets are distributed to participants who do not already have them. Participants will then have their helmets properly fitted, learn why they need to always wear helmets, and will be shown how they can adjust their helmets to ensure a secure fit.

> If your space is limited, you can combine Stations 1 and 2. This very important station, however, needs time and focus that could get lost in a sign-up area.

No person should be allowed to participate in the cycling skills clinic without a bicycle helmet.

A properly fitted bicycle helmet means that the helmet should sit flat and snug on the head, without much side-to-side movement. There should be no more than the width of two horizontal fingers between the front of the helmet and the wearer's eyebrows. The straps of the helmet should come together at the jaw bone, just beneath the ear, forming a "V." The strap should fit snug under the chin but allow the wearer to freely open his or her mouth.

Be sure to wear a helmet that is appropriate for the particular activity you or your child is involved in. (You can order up to 300 copies of "Which Helmet for Which Activity?" by calling the CPSC at 800-638-2772 or write www.cpsc.gov.)

Traffic Safety Implications:

Many cyclists, regardless of age, think that only inexperienced riders need to wear helmets. For young riders, it may be the State or local law. For all riders it is a matter of safety—not just about how you ride but also about the environment (roadway conditions, presence of dogs, debris in the roadway, etc.) and how motorized and non-motorized traffic interact with you. The majority of bicycle crashes are related to the bicyclists falling. The use of a properly fitted bicycle helmet is proven to be 80- to 85-percent effective in preventing brain injuries in the event of a crash. Adults and children alike should be encouraged to wear properly fitted helmets every ride.

Equipment and Supplies:

- Station sign
- Chairs –Those volunteers fitting helmets will need chairs to be able to sit at the child's height and visually inspect the helmet and make adjustments.
- Storage Container/Space - A large area to store helmets if you are giving them away or offering them for sale. Make this area accessible so children can see and have a choice of helmets.
- Bicycle helmets - All participants must wear bicycle helmets to participate in a bicycle clinic. You may either: (1) require the participants to provide their own helmets, (2) loan them helmets for the exercise, or (3) provide free helmet giveaways for those who don't have helmets. Any helmet given to a child or family member should include instructions and a demonstration on how to properly fit the helmet and a reminder to wear the helmet properly every ride.
- Surgical caps or shower caps, one per child if loaner helmets are being used.
- Helmet sizing pads - Have extra sizing pads on hand to adjust helmets to the proper size. The sizing pads placed in the helmet will ensure a secure fit. Over time you should be able to collect helmet pads to help in fitting older helmets. If you are just beginning, ask your local bike shop it they have a supply of helmet padding.

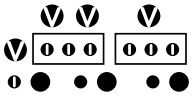
Those experienced in fitting helmets suggest that using helmet sizing pads can be challenging. An alternative is to order helmets in advance that have an internal adjustable band around the head. Use a helmet that is small enough that it doesn't fall off when the child bends over, even before it is buckled. Use a helmet that is large enough to clear big hairdos and then fit the helmet by tightening this band. For more information, contact your local bicycle coalition or bicycle shop for assistance.

- Flexible cloth measuring tape to measure children's heads. Measuring is not necessary for the helmets w ith internal adjustable bands.
- Surgical or shower caps if loaner helmets are being used.
- Pens/Pencils (for volunteers to sign-off on progress cards).

Station Staffing:

This station needs one person trained to fit helmets and at least three volunteers to help get helmets for the children and make preliminary adjustments.

Station 2 – Helmet Fit



See Appendix L for Station Legend

Time:

3-5 minutes per group (6-12 participants). Time may vary based on the experience of those fitting the helmets.

Discussion With Participants:

- Discuss that a helmet should be worn every ride. Everyone should wear a helmet, not just children. Be prepared and protect yourself; encourage your parents and siblings to protect their heads and brains by wearing helmets when riding as well.

- Verbalize the steps for fitting the helmet for safety and comfort.
- Discuss if child currently wears a helmet and why not. Encourage them to individualize their helmets with stickers or other ways to make helmet wearing more acceptable to youth.

Procedure:

- The best way to fit a helmet is to measure the child's head around the widest part just above the eyebrows and ears.
- Helmets should have a label indicating what size they are. Choose the smallest helmet that will fit the child.
- First put on the helmet so it is level on the child's head and—if it slides around or moves side to side, insert helmet sizing pads.

Determining Proper Helmet Size

Helmet size varies based on different manufacturers. The following provides a general idea. For more details, go to the Bicycle Helmet Safety Institute at: www.helmets.org or to the manufacturer Web site.

Hat Size	Head Circumference	Approximate Helmet Size
6-1/2	20-1/2 inches	Toddler
6 5/8	20 7/8 inches	530 Small
6 3/4	21 1/4 inches	540 Medium
7 1/4	22 3/4 inches	578 Large

- Adjust the straps:
  - Eyes: The child should be able to see the front edge of the helmet.
  - Ears: The sliders should be moved up to just under the ear lobes.
  - Mouth: The chin strap should fit snugly enough that opening the mouth widely will move the helmet.

Follow the diagrams for fitting a helmet:

Optional Activity: Videos

The following videos can be downloaded from the link provided or ordered from NHTSA by calling 888-327-4236 or sending an e-mail to http://nhtsa.gov/nhtsa-dpmextn/jsp/email/email_nhtsa.jsp.

1. **"How to Properly Fit a Bicycle Helmet." –** http://www.nhtsa.gov/DOT/NHTSA/Traffic Injury Control/Multimedia/BikeSafety.wmv
2. **"Ride Smart: It's Time to Start" –** http://www.nhtsa.gov/Driving+Safety/Bicycles/Ride+Smart+-+It%27s+Time+to+Start

Station 3

Bike Fit and Inspection

Basic
Intermediate
Advanced

Station Objective:

- To check the proper fit and safety function of the bicycle before riding.

Station Description:

Both the volunteer and the clinic participant work together in this hands-on experience. Participants will have their bicycles inspected for safety and will be shown the basics of keeping their bikes safe for use. A participant will not be allowed on the cycling skills course without a safe bicycle. In most cases this will involve a few adjustments to the bicycle; you will need to have at least one knowledgeable person at this station.

Ideally it is helpful to have one or more knowledgeable mechanics from a local bike shop to oversee this station and volunteers to assist. It is important that bicycle equipment be checked thoroughly after being purchased to ensure not only that the bicycle is adjusted to fit the child, but also that the handlebars, seat, brakes, wheels, pedals, and chains are tight and working properly before riding.

Traffic Safety Implications:

Equipment malfunctions and bicycles that are too big for the rider are avoidable causes of some bicycle crashes. Riding a poorly maintained bicycle can lead to serious consequences. The simplest way to avoid a crash is to be in control of a properly working bicycle. Prior to riding, the bicycle must fit the rider correctly and work properly.

This station is not meant to be an exhaustive repair session, but rather a quick safety check. Participants should be taught the basic things to inspect on a bicycle including tire inflation, brake function, loose or rusty chains, and the security of the seat and handlebars.

Equipment and Supplies:

- Station sign
- One bicycle per participant (either their own bicycles or provided for the event)
- Tire pump(s)
- Basic bike tools including various sized

Ill-fitted bikes are commonly seen, as parents or caregivers purchase or receive hand-me-down bicycles that the child can "grow into." While a bike to grow into may save money, a bike that is too large or too small is unsafe for the rider.

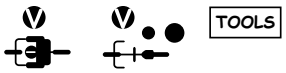
wrenches, pliers, screwdrivers, lubricants, and rags. For a small event, a couple of adjustable wrenches probably are sufficient, but a set of socket and Allen wrenches in both English and metric sizes are better. For a large event a work stand and a good set of bicycle tools is best. Try to get a bike shop to donate the time of one of their employees who knows how to inspect and make adjustments to a bicycle.

- Varying size tubes typical for children's bikes (12", 16," and 20").
- Chain lube, grease
- Paper towels or shop rags to lube the chains
- Bike inspection forms (see Appendix E)
- Pens/pencils for volunteers to sign progress cards

Station Staffing:

This station requires at least one experienced person knowledgeable in bicycle mechanics and maintenance. Additional (3-6) assistants should be used in a large clinic to help prevent a backlog at the station. Volunteers for this station should be taught how to assess bicycle fit and function. The mechanic is most qualified to do the adjustments necessary.

Station 3 – Bicycle Fit



See Appendix L for Station Legend

Those experienced with running clinics offer ideas for alternatives:

- Have families take their children's bicycle to the local bike shop for basic maintenance prior to the cycling skills clinic.
- For those who will offer a number of cycling skills clinics on an ongoing basis, or for those schools or agencies that will be offering bicycling classes, it may be worthwhile to purchase a trailer of bicycles with three or four bicycles of varying sizes. These bicycles can be maintained by a local bike shop, bicycle coalition, or bicycle educators. In this way, no time will be needed at the cycling skills clinic for basic maintenance. By providing a variety of sizes of bicycles the participants will wait for their size bicycles to become available before entering the skills course. This will avoid the need to adjust the sizing of the bicycle to the participant.
- Provide additional activities for participants if there is a backup. Activities could include: fun safety quizzes (**see Appendix F**), bicycle safety videos, or a practice/warm-up area.

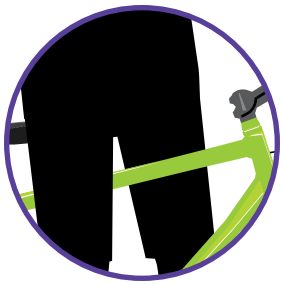
Time:

Less than 10 minutes per group (6-12 participants).

Discussion With Participants:

- Discuss using a bicycle that fits you now, not one that you grow into.
- Discuss the importance of and how to check a bicycle before riding.

Procedure:



1. Fitting the Bicycle:

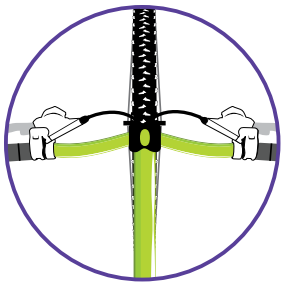
- Have the child straddle the bike. Make sure the child can stand with both feet flat on the ground with about a 1-inch clearance between themselves and the top tube of the bicycle. Many bicycles today have sloped tubes. To access proper sizing, the child should be measured using a bicycle with a traditional top tube. Correlate the sizing determined on this bicycle and use the same size in a sloped tube bicycle.

- Since this station will have an experienced mechanic or a qualified bicyclist, it is likely that the determination can be made easily. The balls of both feet should touch the ground when the child is sitting on the seat of the bicycle; adjust the height of the seat as needed. If the seat is to its lowest position and the feet aren't touching, the bicycle is too big for the child.

2. Bicycle Inspection:

- Look over the bike for disconnected brakes and missing parts.
- Check the tightness of the bolts holding the seat and handlebars.
- Make sure that each bike has properly inflated tires and that the chain is not too loose or rusty.
- Check to make sure the brakes stop the bike when they are applied.

See Appendix E for Bicycle Safety Checks



Station 4

Start and Stop

Basic
Intermediate
Advanced

Station Objective:

- To teach participants how to start and stop their bicycles safely and efficiently.
- To show participants how to stop and dismount efficiently.

Those who bicycle in traffic would benefit greatly from learning how to perform an emergency stop. While it won't be covered in the cycling skills clinic because it is a more advanced skill, it bears mentioning to volunteers and to parents, if they are present, that this skill exists and learning it can enhance the safety of the cyclists. An emergency stop is applied when a bicyclist needs to act very quickly and decisively to prevent a crash. A couple examples would be if a bicyclist is not able to safely swerve around an obstacle in the roadway and must stop, or if a motorists cuts in front of a bicyclist's path. By performing an emergency stop procedure versus a regular stop procedure, it is less likely that the bicyclist will fly over the handlebars, as would otherwise be the case.

Station Description:

Participants will practice starting the bicycle, ride a distance to practice balance, and then come to a complete stop at a marked location. The rider will then start again, make both turns on the course and continue on the course to the next marked spot for stopping. Once again the rider will start and continue back to the starting point, getting behind the last person in line to repeat the station. The participant should repeat the course three times if time permits.

Traffic Safety Implications:

Starting with power and confidence is important to be able to ride without wobbling. The best way to start is by putting the pedal in an "up" position and pushing down on the pedal as one moves up onto the seat. Properly stopping the bike means not skidding the bike to a stop or dragging one's feet to stop. This skill is usually overlooked by people as it is a basic for bicycle riders. These maneuvers will make for much more controlled riding and help to avoid crashes during the clinic.

- **Coaster brakes** – Make sure that the rider knows to pedal backwards to stop the bike.
- **Hand brakes** – Make sure that the rider knows to stop by squeezing both brakes evenly together and that the rider's hands are big enough and strong enough to grasp the brake levers. Note: Hand brakes are usually not on children's bicycles because their hands are not yet big enough.

Equipment and Supplies:

- Station sign
- Materials to create the layout as shown in the diagram:
  - Chalk or tape to mark the lanes and to mark the starting and stopping points.
  - Measuring tape to establish the width and length of the lanes as shown in the diagram.
- Four cones or items to use to designate the starting and ending points of the station. Place two cones at the start and two at the end, far enough away from the course to keep the children from running over them even with training wheels.
- Pens/pencils for volunteers to sign progress cards.

Station Staffing:

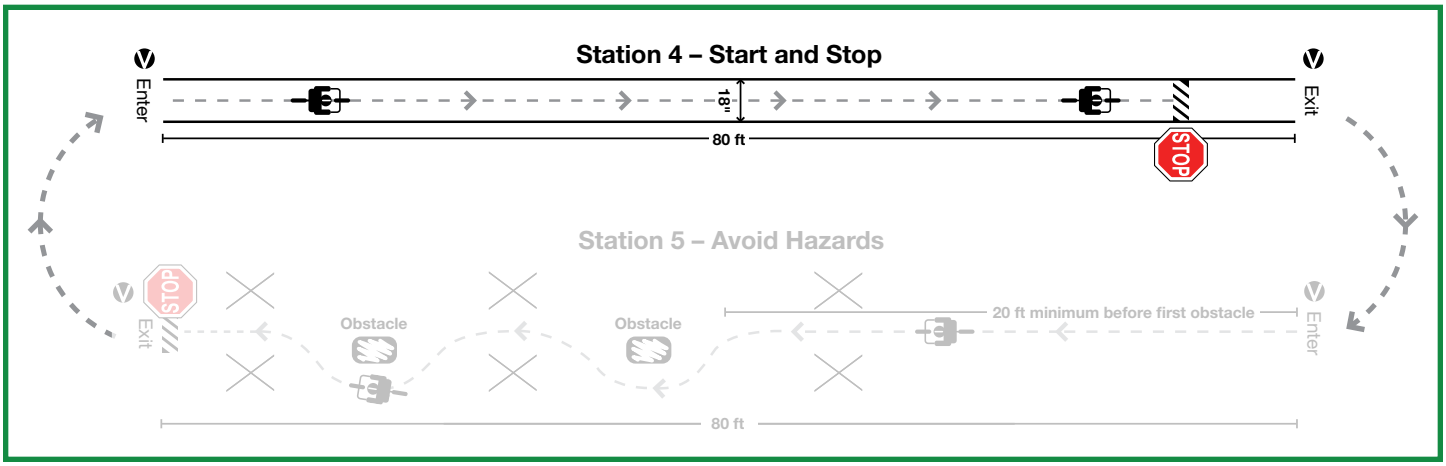
Station leader and one assistant; station leader at the beginning and another volunteer at the end of this station.

Time:

Approximately 1 minute per loop. A loop consists of going through Stations 4 and 5 and back to the beginning of Station 4. Each participant does 3 loops.

Station Setup:

- With chalk or tape, mark 2 parallel lines 18 inches apart and ideally 80 to 100 feet long. If space is limited the length can be reduced to 60 feet.
- Mark a designated spot using tape or chalk where the participants will come to a stop before the end of the pathway. (Displaying handmade stop signs or props are ideal but not essential.)
- Position a volunteer at the stopping point in Station 4 to direct the traffic into Station 5.



See Appendix L for Station Legend

Discussion With Participants:

- Pedal position for starting and why it is important.
- Importance of practicing starting and stopping in a safe environment.

Procedure:

- The leader demonstrates going through the station while everyone watches, showing starting and stopping at the marked locations on the station course.
- Allow riders to practice the **procedure for starting**.
  - Line participants up side-by-side to allow each of them to practice the steps below before going through the course.
    - Straddle the bicycle with both feet on the ground – do not sit on the seat.
    - Raise one pedal in an up position (at about 2 o'clock); this allows the bicyclist to push down on the pedal to start. (See below for more detailed instructions.) Either the left or right pedal can be used, depending on preference.
    - With one foot on a pedal and one foot on the ground, push off with the foot that is on the ground and at the same time stand on the raised pedal—do not pedal after pushing off.
    - Coast to a stop while standing on the pedal that has been pushed down. When the bicyclists are comfortable with this procedure, have them place their second foot on the pedals, their backsides on the seats, and keep pedaling to the end of the station.
  - Once the participants have practiced this a few times, line them up at the starting position to go through the course.
- Once participants have practiced starting a few times, return riders to the side-by-side position and allow them to practice the **procedure for stopping**.
  - Discourage stops that are executed by dragging feet.
  - For coaster brake bikes, make sure the rider knows how to pedal backward to apply pressure to stop the bike.
  - For hand brakes, make sure the rider squeezes the brake levers evenly with both hands. They need to know that using only one brake is not the best way to stop and can be dangerous, possibly causing them to be thrown over the bicycle or to lose control of the bicycle. Hand brakes are not the best choice for small children because their hands are too small to grip and brake adequately.
- Once participants have practiced stopping a few times, determine if you want them to practice the start and stop with bicycle dismount. This is based on your time and the level of the rider. Tell the rider the following:

- Slow down by using the brakes.
- As the bike nears a stop, slide off the seat and put your weight on a pedal in the "down" position.
- Take your other foot off of the pedal and prepare to place it on the ground when you're going slowly enough. If you're using hand brakes, be sure and keep pressure on the brake levers.

- Remind riders how to go through the course.
  - Instruct children that the leader will start the riders through the course one at a time by touching their helmets.
  - When the participant's helmet is touched, the participant will ride as straight as possible to the marked locations, come to a complete stop and put their foot down on the pavement.
  - The assistant will direct them to turn back and to the end of the line to repeat the station.
  - Let children go one at a time and leave enough space so they don't stack up in the course.
  - Have children do the complete loop as many as three times if time allows.
- Recognize that kids are likely arriving with start and stop habits that are different than what you are teaching. Expect that kids will be nervous so accepting a new approach will be stressful. Gently encourage them to try this stop and start approach.
- The first loop of going through Stations 4 and then 5 should include a discussion and demonstration of each station separately. For the second and third loops, when riders have a greater understanding and comfort, they should be spaced so they can do the two stations as a continuous loop.

> Some people are more comfortable starting with the left foot; let the participant choose what is most comfortable and adjust the instructions accordingly.

Practicing Stops With Bicycle Dismount: (optional)

- Slow down by using the brakes.
- As the bike nears a stop, slide off the seat and put your weight on a pedal in the "down" position.
- Take your other foot off of the pedal and prepare to place it on the ground when you're going slowly enough. If you're using hand brakes, be sure and keep pressure on the brake levers.

Station 5

Avoid Hazards

Intermediate

Advanced

Station Objective:

- To teach cyclists control and balance, and how to avoid hazards in their path while riding.

Station Description:

Participants will practice avoiding a hazard and return riding in a straight line.

Traffic Related Implications:

Children frequently fail to notice a hazard, notice a hazard too late to avoid it, or, in an attempt to avoid a hazard, they swerve too far, lose control, and crash, or end up in traffic.

Equipment and Supplies:

- Station sign
- Materials to create the layout as shown in the diagram:
  - Select materials to use for "X" and "hazards" based on availability. Consider using tape, chalk, halved tennis balls, bean bags, or dampened sponges. It does not matter whether the X and hazards are the same or different; however, it may be easier to mark X's with tape and tell the children to ride in between the X's and avoid the sponges (for example).
  - Measuring tape to establish the distance between the X and the distance between the hazards as shown in the diagram.
  - Pens/pencils for volunteers to sign progress cards.

Station Staffing:

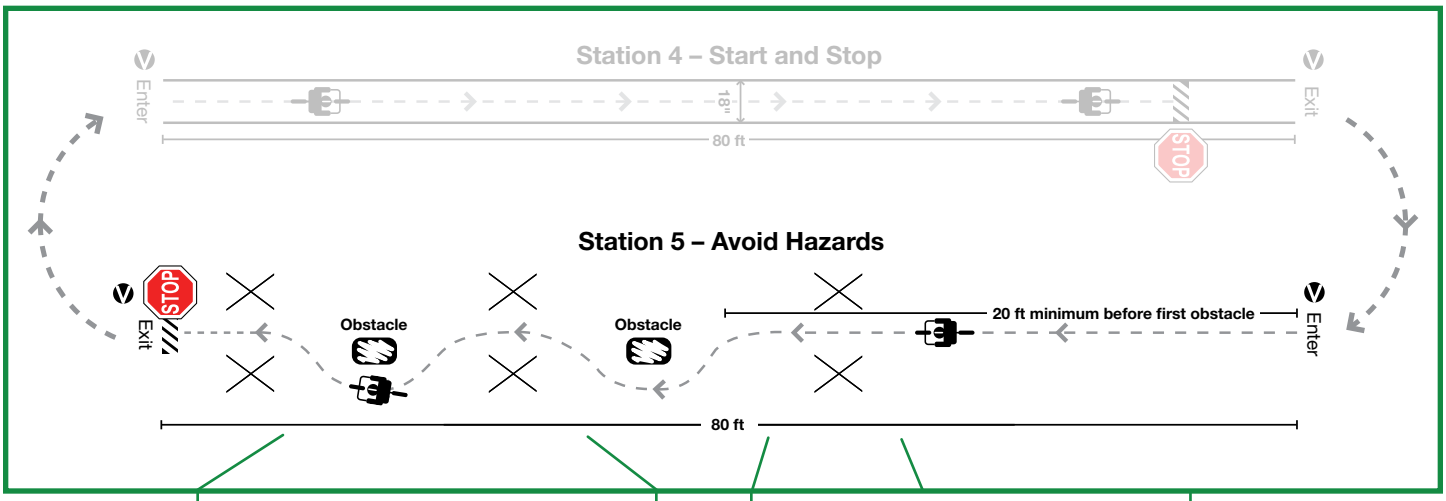
Station leader and one assistant; station leader at the beginning and one volunteer at the end of the station.

Time:

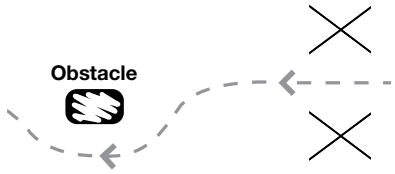
Approximately 1 minute per loop (3 loops per participant).

Station Setup:

- This station is designed to simulate a situation where a cyclist is traveling at a good speed down the roadway and suddenly encounters an obstacle. It happens fast, and can't be practiced at a slow speed. To simulate this, and if space allows, this station can be as long as 80-100 feet, with 2-3 hazards for the rider to avoid. With more limited space, this station can have as few as one hazard. Allow at least 20 feet of riding before placing the first hazard.
- If space and volunteers permit, multiple courses of this station can run side-by side. This can allow for more than one rider can proceed at the same time or you can have one course for younger participants, and one course for older participants.
- Have a volunteer in the area of the hazards to rearrange them when they get knocked over or moved.



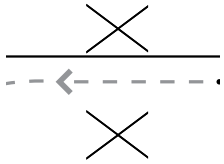
See Appendix L for Station Legend



The distance (between the X and the obstacle) is

2–3′ for children > 10 years old

3–5′ for children < 10 years old giving them more room to manipulate around the obstacle



The distance between the X's is

3-6″ for children > 10 years old

6-12″ for children < 10 years old

Discussion With Participants:

- Discuss the kinds of hazards a bicyclist might encounter when riding (glass, rocks, drain grates, sand, etc.).
- Discuss why a bicyclist needs to stay alert and avoid hazards (to avoid falls, flat tires, open car doors).

How to Avoid Hazards:

- Have participants practice looking beyond the hazards in the direction they want to ride.
- Have participants weave carefully between the hazards, staying between the sponges or items used in the X positions in the diagram shown next to Station Setup.

Procedure:

- Children will ride straight toward the object and steer around it at the last moment. They should steer by turning the handlebars first one way (to avoid the object), then turning back the other way to put the bike back in the intended line of travel.
- The biggest mistake people make with this exercise is not going fast enough toward the hazard, or making the maneuver too slowly.
- The placement of pairs of items such as tennis balls, sponges, etc., used before and after the hazard, are designed to make sure the cyclist doesn't simply make a big swerve around the hazard (think rocks or other items in the roadway).

Station 6

Scan and Signal

Basic
Intermediate
Advanced

Station Objectives:

To teach participant the standard turn signals.

To demonstrate control of the bicycle (riding in a straight line) while scanning for potential dangers (traffic or obstacles).

To demonstrate control of the bicycle while scanning over the left shoulder and then the right shoulder to identify an object.

Station Description:

This station teaches bicyclists to maintain a straight path while looking over their shoulders to see if traffic is behind them. Looking for traffic is the first step prior to changing lane positions or turning, or signaling intent to turn. Maintaining a straight path without swerving under these conditions takes practice.

This will be the most advanced station in terms of skills required for a young or inexperienced rider. All riders need to be able to turn their head long enough to register and identify what they see.

If participants are comfortable looking over their shoulders while riding, proceed to the next step of having them practice doing the same thing while taking one hand off the handlebar. This skill will prepare them to be able to eventually ride with one hand on the handlebar while signaling with the other hand.

Ensure participants understand that riding with one hand on the handlebar is merely practice so eventually they can practice using turn signals while riding. All bicyclists should ride with two hands on the handlebars at all other times except when signaling turns.

Traffic Safety Implications:

Many young cyclists looking back to check for traffic, swerve in the same direction as they are looking. Being able to maintain a straight a straight path increases the riders' safety.

Equipment and Supplies:

- Station sign
- Materials to create the layout as shown in the diagram
  - Chalk or tape to mark out the lanes and to mark the starting and stopping points
  - Measuring tape to establish the width and length of the lanes as shown in the diagram
- Four cones, two at the start and two at the end, placed far enough away from the course to keep the children from running over them even with training wheels

- Cardboard "car" (optional) (**Appendix K**)
- Pens/pencils for volunteers to sign progress cards

Station Staffing:

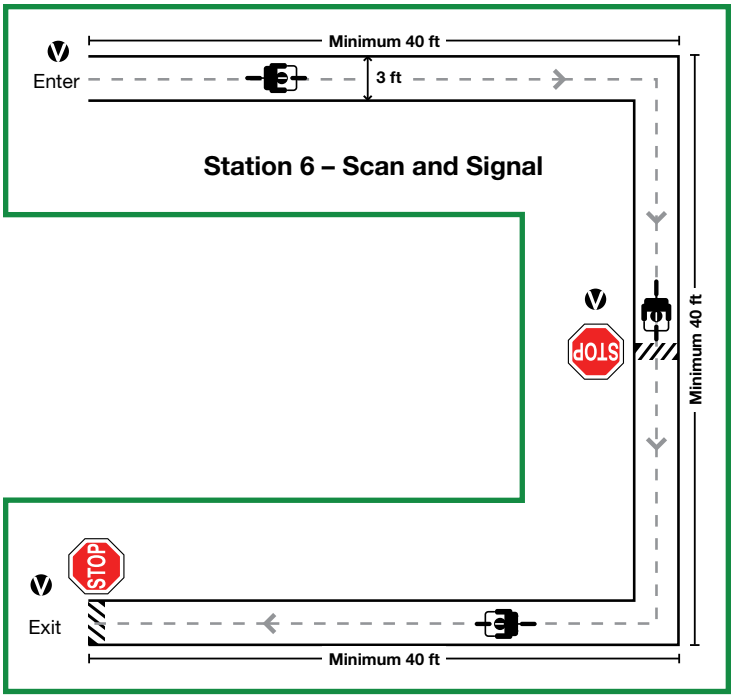
Three volunteers: one at the beginning, one in the middle, and one at the end of this station.

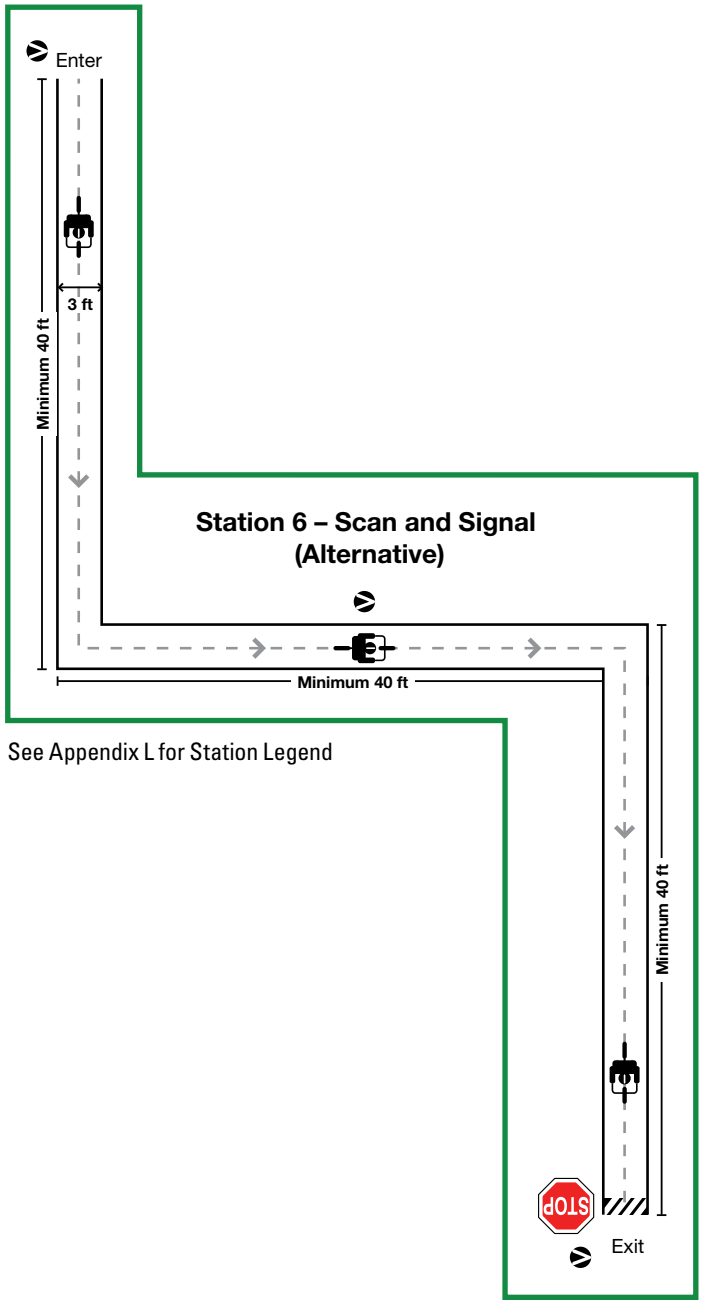
Time:

3-4 minutes per participant. Participants can file through one after the other but they may need multiple practice attempts to learn the drill.

Station Setup:

- With chalk or tape, mark two parallel lines, 3 feet apart and ideally 80 to 100 feet long. If space is limited the length can be reduced to 60 feet. Create a "U" shape to allow for riders to ride in one direction, turn, and ride back to the starting point.
- Alternatively use the "zig zag" shape. Both shapes are suitable for practicing this skill. Choose the shape that best suits your available space.
- Provide at least 40 feet of riding before requiring the rider to turn.





See Appendix L for Station Legend

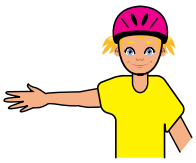
Discussion With Participants:

- Discuss the need to look behind (over their shoulder) when bicycling for the presence of motorized vehicles, other bicycles, and at times, pedestrians before changing lane positions.
- Place a greater emphasis on scanning than giving hand signals; the natural tendency is to swerve left when scanning behind. The ability to maintain a straight line while looking over the shoulder takes practice. Discuss the need for children and their families to practice this skill together in empty parking lots. Once the child is more comfortable with maintaining a straight line and scanning, signaling can be added.
- While children should be taught to signal a right turn by extending the right arm straight out, it is worth mentioning the alternative method so children are able to interpret the signal if seen. The alternative right-turn hand signal is indicated by extending the left arm out and bending at the elbow to form a 90-degree angle. Point out and demonstrate the alternative right-hand turn signal occasionally used by motorists or bicyclists. This method may be used by motorists if their turn signals are not working, or by older bicyclists.

Hand Signals

It is important to teach children what the hand signals are. However, riding and signaling should only be practiced when the child is able to first maintain a straight line when riding, then able to maintain a straight line when riding and looking over the left shoulder and riding and looking over the right shoulder. Next, the child can practice riding and taking one hand off the handlebar.

See Appendix P for the Hand Signals handout

Front View	Hand Signal
	Left Turn Extend your left arm out sideways
	Right Turn Extend your left arm out sideways bent at a ninety - degree angle at the elbow joint, hand pointing upwards and the palm of hand facing forward.
	**Alternative Right Turn** Extend your right arm out straight.
	Stopping or Slowing Extend your left arm sideways and have a ninety degree angle at the elbow joint and hand pointing downwards and the palm of your hand facing backwards.

Procedure:

- The leader demonstrates the hand signals.
- Allow participants an opportunity to practice hand signals (see diagram shown) while waiting their turn to ride.
- Describe the scanning procedure by first telling them and walking them through what they will be doing. Each participant will ride a bicycle three times through this station (as time permits).
  - **First run:** Take the participant through the station one at a time. Ask the participant to concentrate on riding in a straight line. For the less experienced, this alone may be a big challenge.
  - **Second run:** Have children ride straight and practice looking over their shoulders. Both hands should remain on the handlebars.
  - **Third run:** As each child rides tell the child you are going to call the child's name (or say "look") and the child is to look behind and tell you whether or not there is a car coming by saying "no car" or "car." The skill here is to encourage riders to look and to look long enough to process the information to see if a car is coming. Hold the cardboard car sign in front of you when there is a car coming and to your side when there is no car. (If you are short on signs, you can hold your hands high over your head or down to your sides, and have the participant say "up" or "down.") Stand about 10 feet behind the cyclist. Note: Adjustments may be needed for those with hearing impairments.
  - **During the third run:** If the child has demonstrated proficiency, ask the child to scan, looking behind them while trying to maintain a straight line, signal, then return hand to the handlebars and then make a turn.
- If bicyclists still needs practice scanning for traffic and riding straight, do not add the signaling; simply encourage them to keep practicing riding straight and scanning.

Although it's important to be predictable and signal turns, it's more important to maintain control of the bicycle. Bicyclists should not attempt to signal if they fear losing control of the bicycle.

Station 7

Turn and Yield

Intermediate

Advanced

Station Objective:

To practice turning and yielding to other vehicles.

Station Description:

Participants will practice turning in different directions and yielding to the rider on the right. This is the first station teaching actual traffic skills, rather than bike handling skills.

Traffic Safety Implications:

Traffic frequently demands that a bicycle rider change direction without warning. This station tests the ability of a rider to shift their balance and their direction.

Equipment and Supplies:

- Station sign
- Materials to draw the layout as shown in the diagram:
  - Chalk or tape to mark out the lanes and to mark the starting and stopping points
  - Measuring tape for the desired diameters of the circles as shown in the diagram

Station Staffing:

Station leader and three volunteers

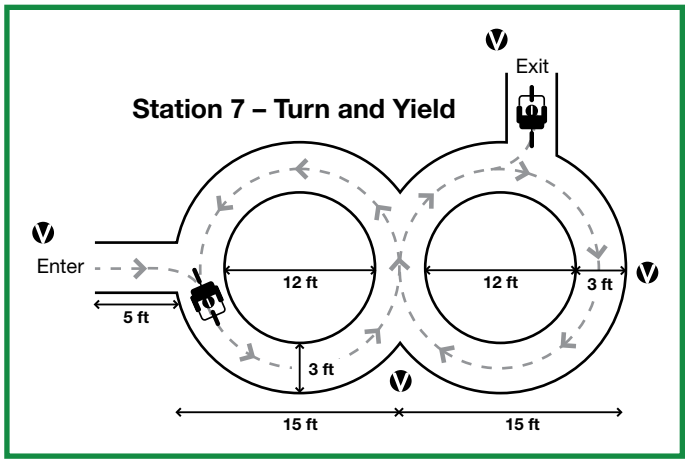
Time:

Less than 2 minutes per participant for each ride through the course (ideally participants will repeat the course at this station three times before proceeding to the next station).

Station Setup:

This is a complex station: Be sure to review the diagram.

- Mark the starting point with tape or chalk, allowing 5 feet of riding before the bicyclists enters the figure-8 at the opening shown in the diagram.
- Have two touching circles, each 15 feet in diameter; two inside circles 12 feet in diameter.



See Appendix L for Station Legend

Discussion With Participants:

- Discuss the difference between yield and stop.
- Discuss the concept of yielding to traffic with or without a yield sign. In this course a rider's possible need to yield can be demonstrated by two volunteers as they walk the course.

Procedure:

- Riders are to enter the course one at a time.
- Riders should enter the figure-8 to the right and maneuver through the circles in a figure-8.
- Riders should return to the end of the starting line and repeat the skill a total of three times, if time allows.

Age Alert:

- For participants up to 3rd grade, each participant should ride the figure-8 without any other cyclist in the course.
- For participants 9 and older the exercise could incorporate a more challenging approach:
  - Instruct the older students to keep riding the figure-8 until you tell them to exit.
  - Keep adding riders until you have four riding the course at the same time.
  - Participants should have the experience of having to YIELD to one another and negotiate the traffic pattern.
  - Remind them to always yield to the rider on their right.

Station 8

Enter a Roadway

Intermediate

Advanced

Station Objectives:

- To give participants practice in entering a street as they would from a driveway or side street.
- To practice riding on the right side of the street, in the same direction as other traffic.

Station Description:

This station teaches participants how to enter a roadway safely. Participants will be asked to pretend this is their driveway or a side street. They are to come to the end of the driveway, stop, look left, right, and left again for traffic, wait until there is no traffic, and then turn into the "street."

Remind participants that they should check for themselves to make sure the roadway is clear and not simply follow a friend into the street.

Traffic Safety Implications:

Riding out of a driveway without stopping is one of the major causes of injury-producing car/bicycle crashes for children. Most often, children do not consider the risks involved with riding out of their own driveways.

Equipment and Supplies:

- Station sign
- Materials to create the layout as shown in the diagram:
  - Chalk or tape
  - Measuring tape to establish the width and length of the lanes as shown in the diagram
- Cardboard "car" or have a volunteer use their arms in the up position or down position to mean a car
- Cardboard "fence" and "bush" (optional)
- Pens/pencils for volunteers to sign progress cards

Station Staffing:

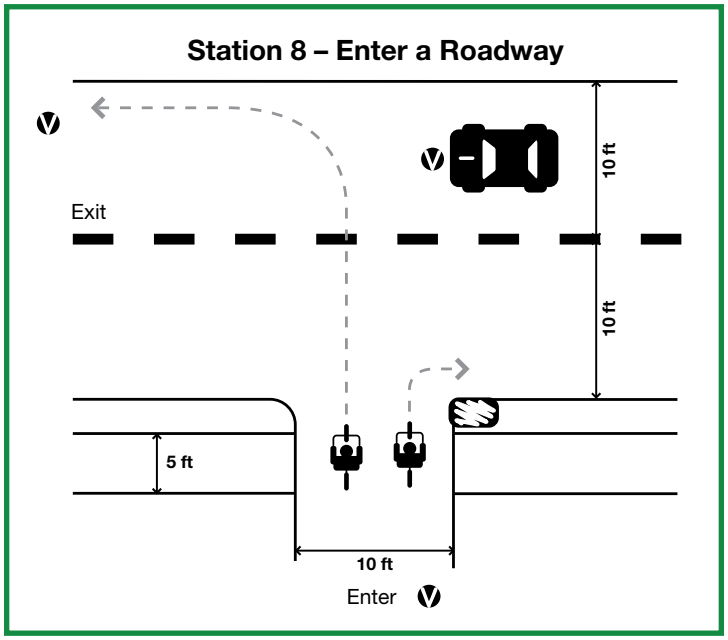
Three volunteers: one at the "driveway" and one at the end of the "road," and a third volunteer to either walk or ride a bike through the course with a sign that looks like a car or a truck to simulate traffic.

Time:

3-5 minutes per participant (3 times through station).

Station Setup:

- This setup creates a "driveway" leading into a "street." Make the lanes and sidewalks as realistic as possible by following the measurements provided.
- Mark a 10-foot width for the "driveway," with 5-foot sidewalks.
- Insert a parked car by either drawing a car with chalk, or taping an X, etc.
- A volunteer will be needed to indicate verbally or using the car prop (**Appendix K**) whether a car is coming or not. See procedure below for more discussion.
- Post or have volunteers hold fence prop and bush prop on either side of "driveway" (**Appendix K**) to create visual challenges requiring the rider to really look for cars before entering the roadway.



See Appendix L for Station Legend

Discussion With Participants:

- Discuss the need to stop at the end of a driveway to look for traffic before entering a road.
- Discuss the importance of stopping at the end of the driveway to look for traffic.
- Discuss why a motorist may not see a bicyclist (obstacles, not looking your way).
- Encourage a discussion of participants' own driveways or items in the neighborhood that block their view of the street.

Procedure:

- Explain to participants to pretend that they are coming out of a driveway. Have each rider stop at the end of the driveway, look left, right, and then left again, and then proceed when it is clear.
  - One way to do this is to hold a cardboard sign up if a car is present and have the bicyclist yell out, "car." Once the car has passed, the bicyclist should look left, right, left again for traffic. This time, the volunteer will put the car sign down, indicating no car is present.
- Less experienced riders should make a right-hand turn out of the driveway. More experienced riders can make a left-hand turn out of the driveway when clear. Whichever way the bicyclist is turning, remind them to position themselves on the right hand side of the street after their turn.
- A volunteer at the end of the street will ask the cyclist to turn and move into the next station.

Age Alert:

- This station is an opportunity for children of all ages to practice riding skills and learn safe ways of riding in traffic. Children should understand, however, that those under age 10 should not ride in the street. It is recommended that children under 10 ride on the sidewalk or in areas not associated with traffic.
- Most children are not capable of bicycling in traffic until they are about 10. The complexities of traffic are simply too advanced for their developing bodies and minds. For this reason, many communities allow sidewalk bicycling for children. Young children should be accompanied by adults to help them navigate through hazards such as driveways and other intersections. It would be a mistake to presume that sidewalks are completely safe from traffic.

Station 9 Intersections

Advanced

Station Objectives:

- To teach young riders to successfully negotiate an intersection, including searching for motorized and non-motorized traffic and making safe decisions based on traffic conditions.
- To teach cyclists to stop at stop signs; look in all directions for traffic; position pedal for a power takeoff; and go when there is no conflicting traffic.

Station Description:

This drill allows participants to practice turning right, going straight, and turning left through an intersection.

Traffic Safety Implications:

Many crashes occur when bicyclists are turning at signed or signaled intersections.

Children often don't think through the risk involved in not stopping at an intersection, or the importance of scanning in all directions for oncoming traffic. Children must learn to negotiate intersections safely by stopping, scanning for traffic, being seen, and signaling, if necessary, before going through an intersection.

Equipment and Supplies:

- Station sign
- Four STOP signs, one placed at each corner of the intersection
- Materials to create the layout as shown in the diagram:
  - Chalk or tape to mark the layout and where the rider should stop at the stop signs.
  - Measuring tape to establish the width and length of the lanes as shown in the diagram.
- Pens/pencils for volunteers to sign progress cards

Station Staffing:

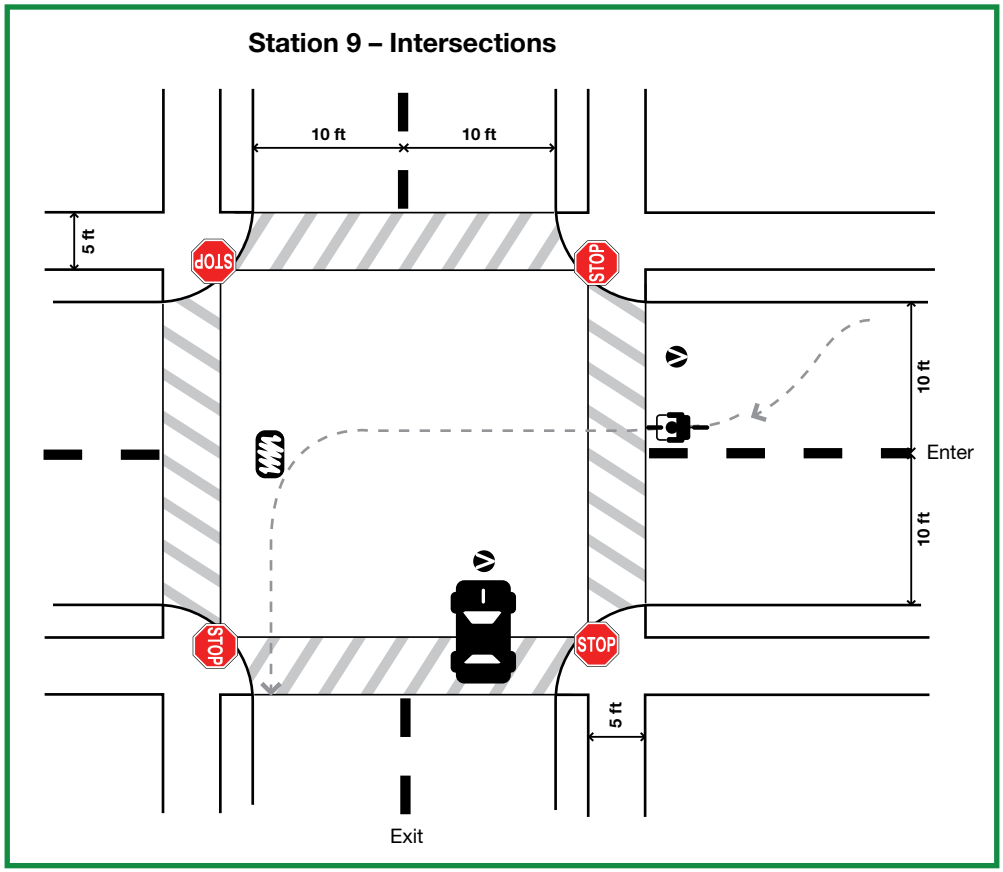
Two volunteers are needed; one volunteer directs the riders through the intersection, the second volunteer either walks or rides a bike through the course with a sign that looks like a car or a truck to simulate traffic.

Time:

3-5 minutes per participant.

Station Setup:

- This is a simulated intersection, with traffic lanes and sidewalks. Because children do not understand abstract concepts well, it is important to make the lanes and sidewalks as close to real life as possible, with 10-foot lanes and 5-foot sidewalks. The layout is a short street leading to a four-way intersection that allows children the ability to ride through the intersection three different ways.



See Appendix L for Station Legend

Discussion With Participants:

- Pursue with participants what they should be looking for at intersections (vehicles backing up out of driveways; the presence of a stop or yield sign or a traffic light; other road users (pedestrians, bicyclists, motorists).
- Discuss how they should look (include looking left-right-left again at a four-way intersection; look with their eyes and their ears, and not talk on cell phones or listen to music).
- Discuss what they should do when riding and their vision of a traffic sign or signal is blocked (a bicyclist must stop and then move ahead to where they can see, stop again, and look for traffic before proceeding).
- Discuss what they can look and listen for that will tell them a vehicle is backing up (white back-up lights, beeping sound, exhaust coming out of back of a car).

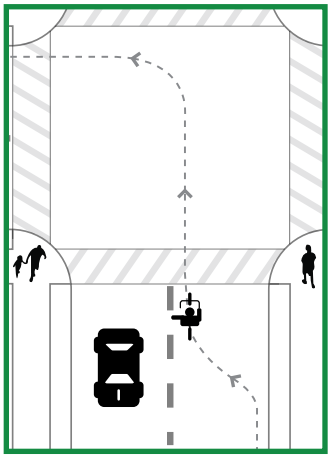
If you have unlimited space, time, and support, you might find consider expanding this station. By setting up an intersection, you can have a lot of meaningful fun with a group of cyclists. They can practice starts, stops, yielding to others, making turns, and going straight. Add a crosswalk and have pedestrians, too.

Procedure:

- Instruct the rider to stop at the stop sign, look left-right-left again. They should check sidewalks and crosswalks for pedestrians and proceed through the intersection when clear.
- Riders should stop and wait behind the "stop line" if anyone is about to cross.
- Riders should signal a right turn, and when it is clear, make the turn.
- Have the rider make a u-turn, go to the stop sign, and look left, right, and left again, and when it is clear, proceed through the intersection.
- Have the rider make a u-turn, proceed to the stop sign, and make a left turn, reminding them that they are to position themselves in the roadway correctly for the turn. To achieve this positioning, they will:
  - Move to the left side of the lane. Remind them to stop at the stop sign and look left-right-left for traffic and make the turn only when it is clear. Remind the rider to get in the proper position to make a left-hand turn following the description below. Simplify the process based on the participant's level of experience and comfort.
- There are two ways to make a left-hand turn:
  - as a car would turn (vehicular left turn); or
  - as a pedestrian would turn (pedestrian left turn).
- Both are lawful ways to turn, the decision of which one to choose is made by the

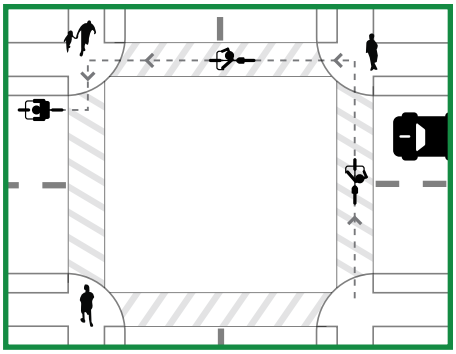
cyclist. A vehicular left turn is more complicated. Less experienced cyclists should consider using the pedestrian left turn where they cross in a crosswalk while using the pedestrian crossing signal. Both left turns are illustrated and described below.

Vehicular Left Turn



1. Look over your left shoulder for cars (shoulder check).
2. Signal your desire to change lanes or position.
3. Shoulder check again.
4. Return both hands to the handlebars and if clear, move to the left side of the lane or to the left lane and signal again.
5. With both hands on the handlebars, make the turn.

Pedestrian Left Turn



1. Dismount your bicycle and move onto the sidewalk to prepare to cross at the crosswalk.
2. Walk your bicycle in the crosswalk, just like a pedestrian, following the pedestrian signal.
3. Walk your bicycle in the ***next*** crosswalk, just like a pedestrian, following the pedestrian signal.
4. Return to position on the roadway to continue your journey.

At a stop sign, the cyclist should pull far enough forward to get a good view of traffic, put one pedal in the proper position for a power takeoff, wait until it is clear, signal if turning and proceed. Each subsequent rider must stop and look for traffic in the same manner; it is not safe to follow a friend through the stop sign without looking yourself. Each rider must stop and look for traffic.

As each cyclist approaches the intersection, vary your instructions, telling some cyclists to go straight, and some to turn left.

Less experienced cyclists should be encouraged to use the simpler alternative for making a left hand turn by dismounting their bicycle and walking their bicycle in the crosswalk like a pedestrian, using the pedestrian signals.

Station 10

Traffic Practice

Advanced

Station Objective:

- To allow participants to put together all of their bicycling skills, by practicing all the things they've learned.
- To reinforce the importance of safe bicycling behavior and skills needed to prevent some of the most common causes of child-related bicycle crashes.

Station Description:

This station allows participants to practice bicycle safety skills necessary to deal with assorted roadway situations. Take advantage of the most natural-looking road environment possible. Consider a portion of a long driveway or a section of a street (temporarily blocked from traffic). Use natural objects whenever possible (real cars, stop signs, etc.). Be sure to include as many of the following skills and situations for participants to negotiate as possible:

- Stopping at a stop sign
- Looking left, right, and left for traffic before proceeding
- Preparing for a power take-off
- Positioning self to the right side of the roadway after turning
- Riding straight in a lane (balance and control)
- Making left-hand and right-hand turns
- Scanning to the front and over their shoulder for obstacles and traffic before changing lanes
- Avoiding hazards in the roadway
- Obstructions (parked cars, bushes, fences, dumpsters)

Traffic Safety Implications:

Child bicycle crashes are most often a result of the child's behavior versus the motorist's. There are four common causes of child- and motorist-related bicycle crashes:

1. **Ride-out.**

   What happens: Bicyclist rides into street from a residential driveway, a sidewalk, or off a curb without stopping and is hit by a passing car;

2. **Left turn or swerve.**

   What happens: Bicyclist moves left without looking over the shoulder and yielding to other traffic, and is hit by an overtaking car;

3. **Stop sign ride-out.**

   What happens: Child passes through a stop sign without stopping and is hit by a passing motorist; and

4. **Wrong-way riding.**

   What happens: Child is riding against the flow of traffic and is hit by a motorist. A common scenario is when a right-turning car pulls around a corner and hits a bicyclist riding against traffic.

Equipment and Supplies:

- Station sign
- Materials to simulate an intersection and driveway (tape, chalk, or spray chalk) or use a real intersection or driveway if law enforcement officers will allow the roadway to be closed off for this exercise
- Hazards (use bathmat to simulate a drain grate, cones, damp sponges, halved tennis balls, etc.)
- Stop sign if creating an intersection

Station Staffing:

Three volunteers are needed. One volunteer controls riders entering the course, one tells the riders what to do while on the course, and one rides a bike through the course or on the street with a sign that looks like a car, truck or school bus to simulate traffic.

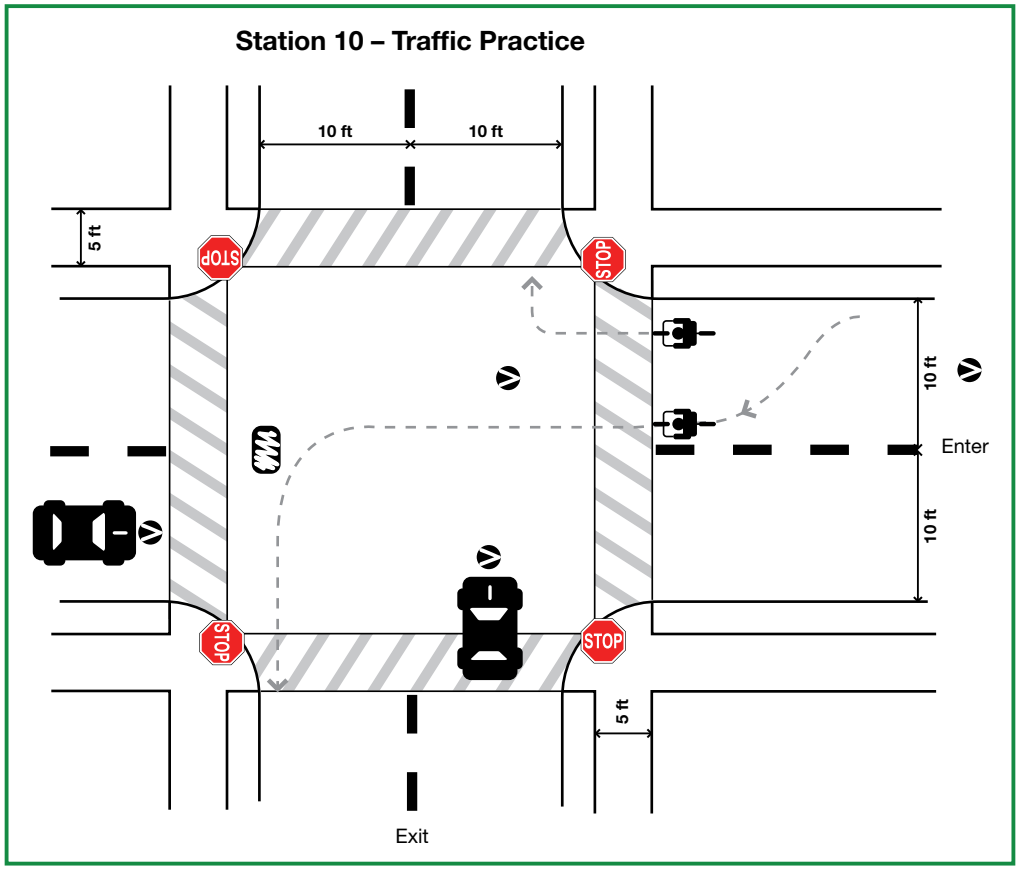
Time:

Whether using the simulated clinic course or the roadway, participant should be allowed to practice three times, if time allows. This will take approximately 5 minutes per participant.

Station Setup:

This is a simulated intersection with traffic lanes and sidewalks. Because children cannot visualize a real traffic situation, it is important to make the lanes and sidewalks as realistic as possible:

- Use 10-foot-wide lanes.
- Use 5-foot-wide sidewalks.
- If it is possible to have full-size traffic signs, place them 7 feet above the ground to make it closer to reality.
- This layout needs to have white lines, because using cones doesn't allow children to have the full effect of lanes.



Discussion With Participants:

- Emphasize riding your bicycle defensively; always look out for the other guy, and err on the side of safety.

Procedure:

- Explain to participants that this station gives them a chance to put together all of their bicycling skills.
- Look over each hang tag to note any special comments and make adjustments to this station accordingly.
- While one volunteer tells the participants how this station works, another volunteer demonstrates on a bicycle so the instructions are heard and seen.
- Volunteer #1 will instruct participants to enter the course through the driveway. Make sure riders are starting with their pedals in the power-pedal position, as well as stopping, looking left-right-left and then proceeding only after it is clear. Participants should stop at the end of the driveway and look left, right, and left again for traffic. They may enter the course when it is clear of traffic.
- Volunteer #2 will stand halfway down the center median and instruct cyclists when to turn right and when to turn left. Every other rider should be instructed to turn right to keep from causing congestion in the side streets. Volunteer #2 should instruct them to make a left turn by scanning, signaling, and moving into the proper left-turn position, then turning into the driveway.
- Volunteer #3 is riding on the bike, and should be communicating with the young riders and making sure that they scan and signal before swerving around the obstacle and before turning left. A rider should be taught to allow a vehicle to pass rather than turning in front of the moving vehicle.
- Finally, participants will yield to crossing traffic at the end of a driveway or cross-street before exiting.

Major Points to Reinforce:

- Ride on the right side of the street, with traffic.
- Scan and signal before swerving around the hazard and return to the right side of the lane.
- Come to a complete stop at the stop sign before turning right.

Celebrate Success

Basic
Intermediate
Advanced

Station Objective:

- To allow students, parents, and volunteers to celebrate a successful day of learning. Reinforce to everyone that bicyclists of all ages should wear helmets every time they ride and follow the safety rules of the road that they learned in the cycling skills clinic.
- To encourage participant to share take-home educational material and safety messages with their parents, caregivers, family members, and friends.

Station Description:

Make sure each child's progress card is complete. Personalize and present the certificate, and hand out any additional educational material and goody bags people have donated.

Traffic Safety Implications:

Traffic safety behaviors related to bicycling are not learned by a one-time cycling skills clinic. Parents and caregivers must reinforce the safety messages and their expectations for their children's behavior in and around traffic. Correct behaviors must be expressed and modeled by all those who care for a child. Through practice and experience, safe behaviors can become habits.

Whether the parent/caregiver was present or not at the cycling skills clinic, a summary of what was covered in this educational forum and the safety behaviors expected of parents/caregivers as role models for their children should be given in hand-outs.

Equipment and Supplies:

- Tables
- Certificates and/or progress cards
- Pens/thin-lined markers
- Water and healthy refreshments (optional)

Station Staffing:

Everyone participates! After each station is finished by all the riders, the volunteers from that station move to this last station. At the end, all volunteers, riders, and parents should be here.

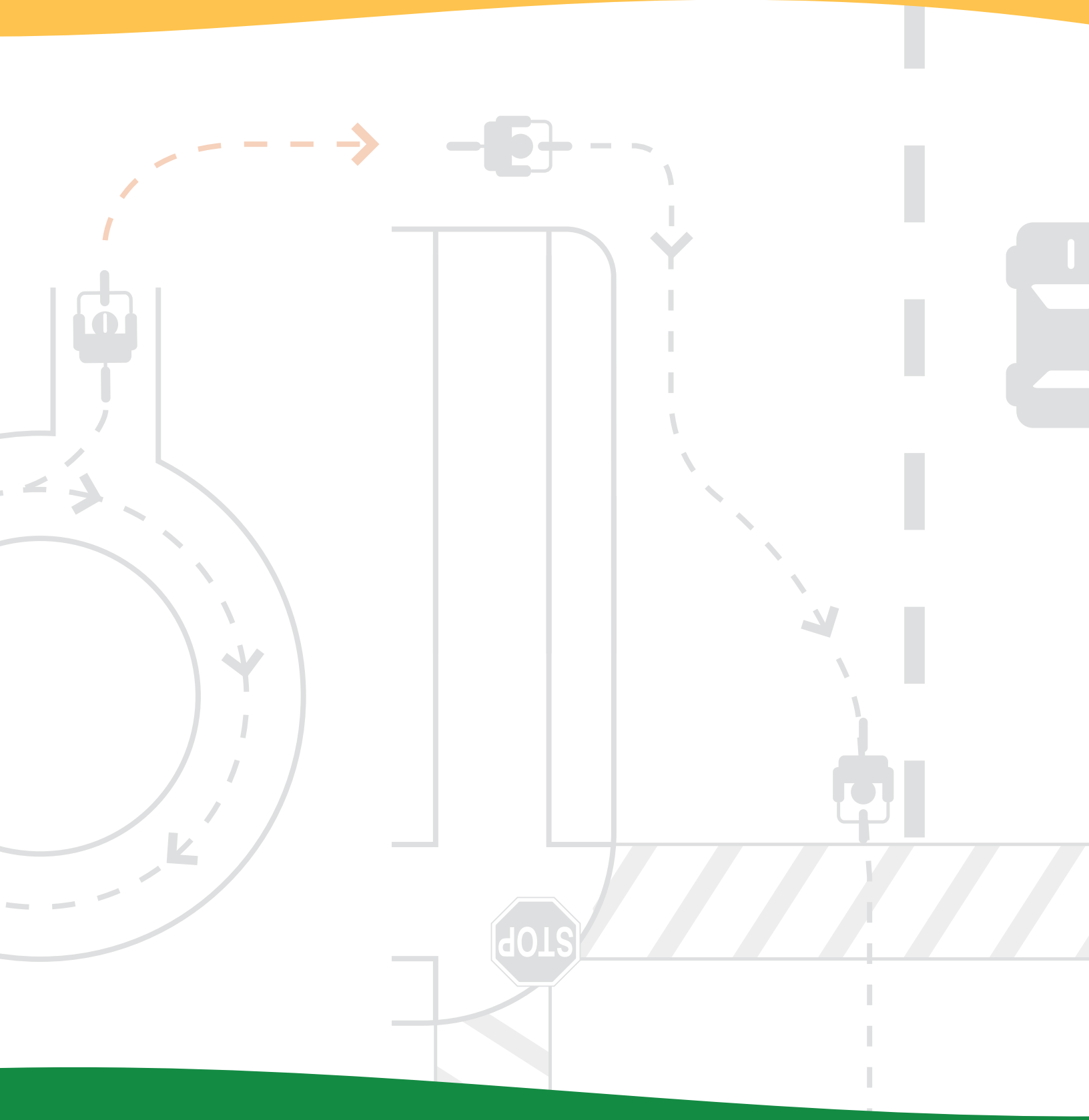
Time:

As long as people want to stay and celebrate!

Volunteer Instructions:

- Enjoy a successful day!
- Participate in a debriefing with the event coordinator to share what worked and what didn't work

DOT HS 811 260
January 2011



U.S. Department of Transportation
National Highway Traffic Safety Administration

NHTSA
www.nhtsa.gov