

# STARTING STOPPING

Starting: Have students begin by standing over the bicycle with both feet on the ground.

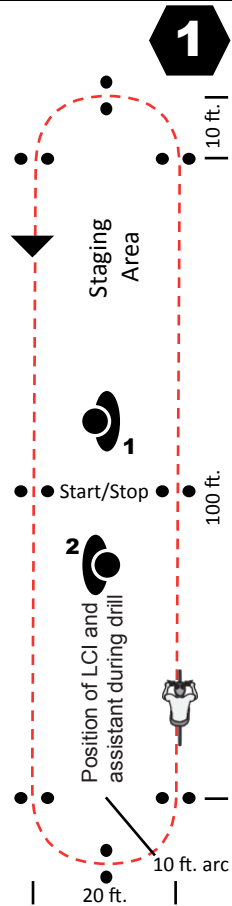
With the bike in starting gear, foot in power pedal position, stand up and push down. Get second foot on the pedal as it reaches the top. Keep the pedals turning and increase speed to a comfortable pace.

Stopping: Have riders brake to a stop in the middle of each leg, using both brakes and turning handlebars away from the dismount side as the bike comes to a complete stop and they get off of the saddle and put one foot down.

Instruct students to return to the staging area after three repetitions of each complete drill. The staging area is in the middle of one end of the layout.

Option: Have riders find "starting gear" by making three starts in different gears.

Tennis balls: 18 inches apart.



# STRAIGHT LINE/ SHIFTING

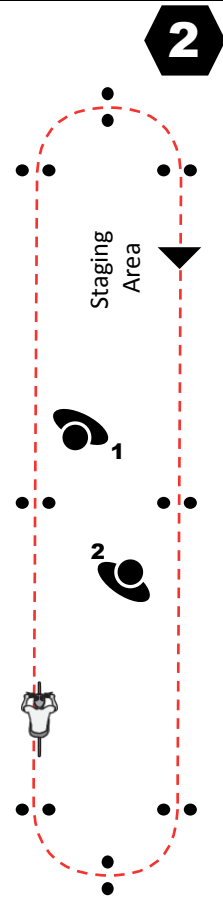
Setup: Use the same oval course as Starting/ Stopping.

Have the group ride the course in the opposite direction from the last drill, shifting into a higher gear for the straightaways and a lower gear around the curves.

Instructor and assistant should be encouraging students to lean the bicycle to complete the turn within the 20-foot curve.

Each student should go through the entire loop three times and return to the staging area.

Remind students that they need to look beyond the oval to stay in a straight line.



# SCANNING

Setup: Use the same course as Starting/ Stopping or Straight Line/ Shifting.

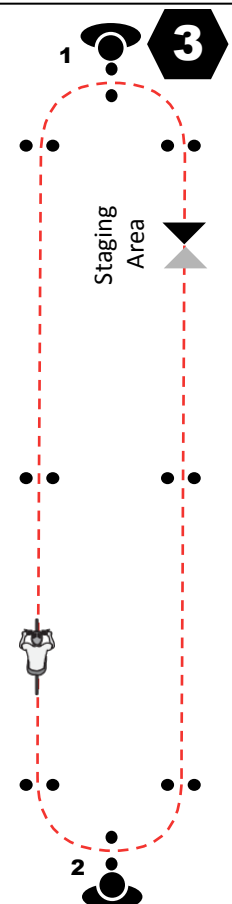
Instruct each student to scan twice on each leg and call out the number of arms the instructor is holding up (zero, one or two).

Go around three times, counterclockwise, scanning to the left, and return to the staging area. Then go around three times, clockwise, scanning to the right.

Have all students complete at least three repetitions to each side.

If no assistant is available, perform the scans on just one leg of the course and reverse the flow after all have completed at least three scans to one side.

Instructors should stand approximately where the driver of an overtaking automobile would be (indicated on the diagram).



# SCAN, SIGNAL, TURN

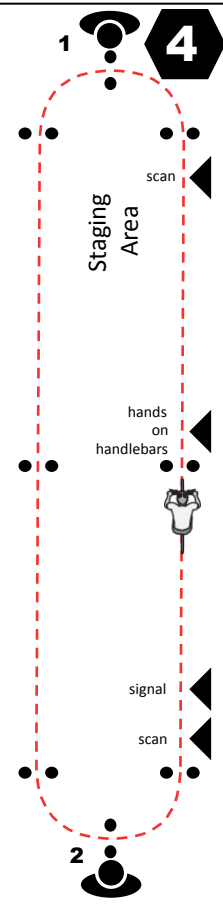
Setup: Use the same course as Starting/ Stopping or Straight Line/ Shifting.

Instruct students to scan early, signal for a count of two, return hands to the handlebars upon reaching the mid-point then scan one more time before beginning the turn.

Most states require a signal 100 ft. before a turn. This layout gives students practice judging that distance.

After each student has been around three times signaling a left turn, and is back at the staging area, have the group reverse directions and scan and signal a right turn.

Make sure the students remember to scan and signal early and have both hands on the handlebars during the turn.



# STRAIGHT LINE/ SHIFTING

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**WHY**  
Learning to ride in a straight line gives you control and makes you predictable and safer in traffic. Getting used to shifting frequently allows you to maintain your efficiency and control of the bike in varying traffic or terrain.

**EXPLANATION**  
Your bicycle will tend to go where you are looking so you should be looking well ahead. That means practice looking at least a block ahead. Let your peripheral vision guide you between the markers.

Downshifting into turns and stops and upshifting for straightaways allows a rider to remain in control without overexerting. Shift one or two gears down as you enter the curve and one or two gears up as you return to the straight sections of the oval. Shifting also allows you to keep a high cadence to take the pressure off of your joints and muscles.

**DEMONSTRATION**  
Demonstrate the straight line and shifting drill with one pass around the oval.

**EVALUATION**  
Looking up, shifting

# STARTING STOPPING

1

**WHY**  
Starting and stopping smoothly and without wobbling helps you maintain control of your bike in traffic, and presents an appearance of competence to others. Use of an appropriate starting gear provides smooth rapid acceleration across intersections in complete control of the bicycle.

**EXPLANATION**  
The weight of your body, applied to the raised power pedal, can accelerate the bicycle smoothly while at the same time allowing you to raise your body onto the saddle. By placing the second foot on the pedal as it reaches the top of the circle and continuing the rotation you maintain momentum through an intersection.

Use both brakes to stop, with more pressure on the front brake, but not enough to cause the back wheel to skid (have your students hold up the hand that activates the back brake). Stop on an imaginary line between the markers in the middle of the straightaway. As the bike comes to a stop, slide off the saddle and remove one foot from the pedal and put it flat on the ground. Turning the handlebars slightly away from the side you are stepping down on will cause the bicycle to lean to that side.

**DEMONSTRATION**  
Demonstrate the start and stop exercise using the handling skills oval.

**EVALUATION**  
Full stop, one foot down, off the saddle

# SCAN, SIGNAL, TURN

4

**WHY**  
Control of a bicycle in traffic is the basic crash prevention skill. This drill brings the three previous drills together and lets you practice the entire range of bicycle handling skills.

**EXPLANATION**  
Being able to control your bicycle during simple maneuvers will help you avoid a majority of the crashes that cyclists encounter. One of the most important actions that cyclists perform in traffic is communicating with other road users. Being able to scan and take a hand off the handlebars to signal is a big step towards control.

**DEMONSTRATION**  
Demonstrate the entire scan, signal, hands back on the handlebars by the middle of the leg and one more scan before the turn.

**EVALUATION**  
Both eyes, arm extended, count of two, scan again



# SCANNING

3

**WHY**  
Scanning for traffic behind is critical when swerving around a hazard in your path or maneuvering to change lanes or make a left turn. We learn to scan over both our left and right shoulders as there are situations when overtaking traffic may be on our right side in the lane we wish to occupy. Maintaining a straight line while scanning allows us to be predictable and appear professional – increasing our safety.

**EXPLANATION**  
Your bicycle will tend to veer off course when you turn your head to scan to the rear reducing predictability and rider safety. Learning to avoid this tendency is the purpose of this drill.

Three ways to scan: a brief turn of the head; a tilt of the head, putting the chin in the shoulder and looking behind; and taking the scan-side hand off of the handlebars and turning the upper body to look behind.

Ride the oval three times in each direction (counter-clockwise for left scans and clockwise for right). Scan twice on each straightaway and call out the number of hands the instructor is holding up. You will be evaluated on your ability to scan to the rear (two eyes on the instructor). Accurately identify the number of arms raised and return your view forward while riding a straight line.

**DEMONSTRATION**  
Demonstrate the entire scan drill one time around the oval.

**EVALUATION**  
Both eyes, number of arms, straight line

# QUICK STOP

5

Setup: Balls are placed in pairs, 18 inches apart and spaced 4 ft, 2 ft, and 4 ft apart along the chute as shown.

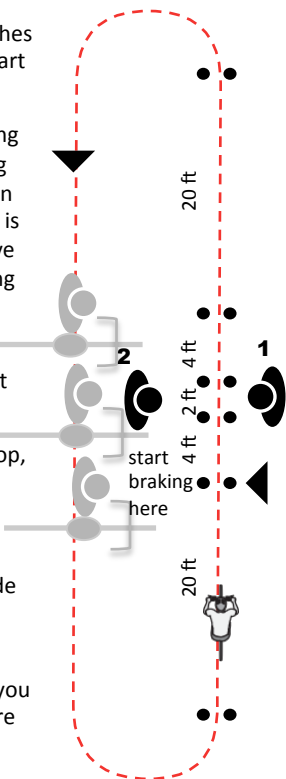
Riders will make three different braking passes through the chute, maintaining the same speed for each and will begin braking at the first pair of balls. There is no target stop line, but each successive pass should result in a shorter stopping distance.

Instruct students to begin braking when the front wheel reaches the first pair of balls.

Have students come to a complete stop, with one foot flat on the ground.

Instructor stands in a position to support the riders as they come to a stop. Assistant stands on the other side for the same reason.

For more advanced riders:  
Instruct them to begin braking when you give a signal while they are somewhere within the chute.



# ROCK DODGE

6

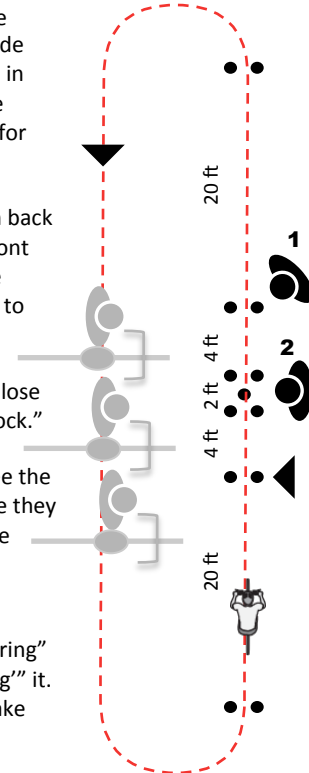
Setup: Using the same layout as the Quick Stop, turn a ½ tennis ball inside out to make the “rock” and place it in the very center as shown. Mark the positions of all the balls with chalk for quick replacement.

We teach turning left first and then back to the right. If done properly the front wheel should pass to the left of the “rock” and the rear wheel will pass to the right.

Remind students that they will not lose points if the back wheel hits the “rock.”

Instructor stands in a position to see the front wheel. Assistant stands where they can replace the “rock” quickly. Have extra rocks on hand.

Start with balls 18 inches apart and reduce the width if riders are “steering” around the rock instead of “dodging” it. Announce that you are going to make the “dodge” action easier.



# AVOIDANCE WEAVE

7

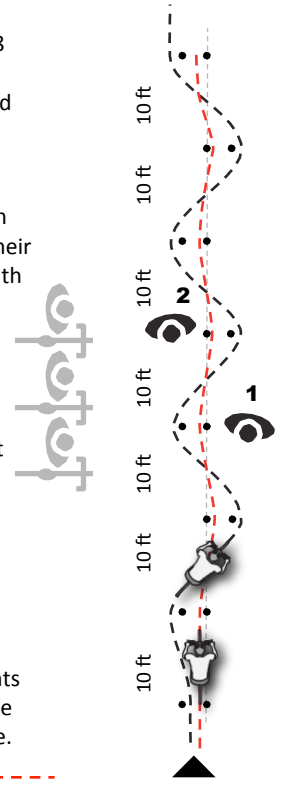
Setup: Place 8 balls on a straight line 9-10 feet apart. Place a second ball 18 inches to the side of each ball, alternating sides except for the second ball (see diagram).

Remind students that the first few passes will be made by going between the pairs of balls, which means that their tires need only move laterally the width of a tennis ball.

The second set of three passes will require riding around the outermost ball of each pair. The tires must now travel 3 feet laterally for every 10 feet along the length of the course.

Instructor stands in a position to give encouragement and remind riders to look up, turn early and lean their bicycles.

This is a fun exercise and most students will want to continue riding it, so make sure you maintain your time discipline.



# QUICK TURN

8

Point out to students that this is the space that they would have if they were sharing a wide lane or riding in a bike lane. Have them begin the countersteer at the second set of balls.

Most riders fall by straightening up before they have completed the turn. A few riders may jerk the handlebars back too sharply and go over the handlebars.

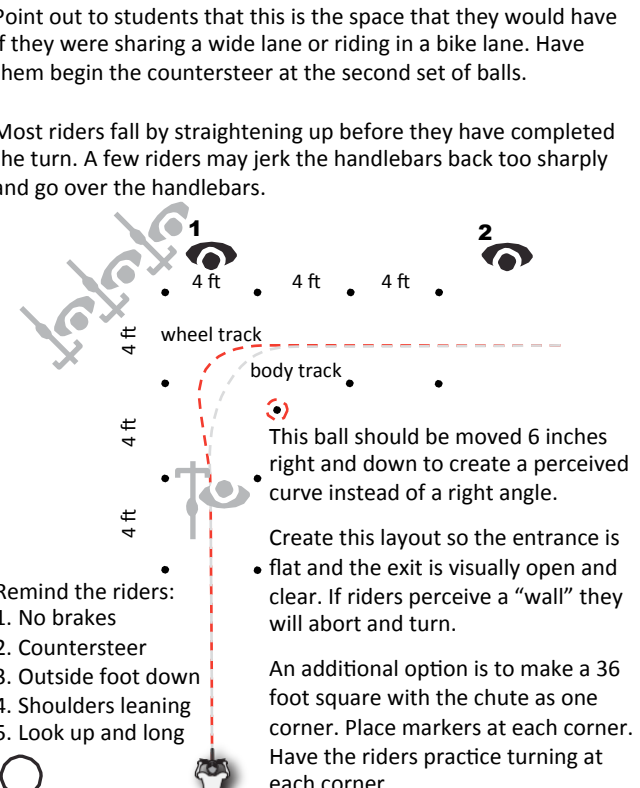
Remind the riders:

1. No brakes
2. Countersteer
3. Outside foot down
4. Shoulders leaning
5. Look up and long

This ball should be moved 6 inches right and down to create a perceived curve instead of a right angle.

Create this layout so the entrance is flat and the exit is visually open and clear. If riders perceive a “wall” they will abort and turn.

An additional option is to make a 36 foot square with the chute as one corner. Place markers at each corner. Have the riders practice turning at each corner.



## ROCK DODGE

6

### WHY

The ability to dodge an obstacle allows you to avoid hazards without swerving into traffic or hitting another cyclist riding beside you.

### EXPLANATION

You will make three passes through the chute. Aim at the rock and twitch the handlebars to the left and then the right to move your front wheel around the “rock” and back to the line of travel. This maneuver is best done at a rapid pace.

Practice your rapid “twitch” movement as you come around the course to the final straightaway and the chute, always remembering to bring the handlebars back the other way quickly enough that your bicycle and your head never deviate from the straight line. Only the front wheel makes the radical movement around the rock such that the back wheel may, or may not, touch the rock – a much less serious situation than hitting it with the front wheel.

### DEMONSTRATION

The instructor should demonstrate the rock dodge.

### EVALUATION

Turn left first, front wheel misses rock, controlled recovery

## QUICK STOP

5

### WHY

The ability to stop quickly and in control of the bike will provide riders with confidence and will allow them to avoid crashing into something that appears suddenly in front of them.

### EXPLANATION

The quickest stop a bicyclist can make involves the proper application of both front and rear brakes and a shifting of the rider’s weight toward the rear of the bike. Front brakes should be applied three times as hard as the rear brakes.

You will make three passes through the chute, maintaining the same speed and should begin braking at the first pair of balls. There is no target stop line.

On your first pass, you will apply only the rear brake showing that the rear brake alone is not very effective. On the second pass apply both brakes. The third pass is with both brakes and a weight shift to the rear. Even with just the rear brake, there should be no skidding, as a skid reduces braking friction and reduces control.

Shifting the weight over the back wheel allows the rear brake to work more efficiently, and allows the front brake to be applied harder without lifting the back wheel and potentially going over the handlebars.

### DEMONSTRATION

For the final demonstration pass, two assistants should be positioned to help the rider avoid falling.

### EVALUATION

Both brakes, weight shift, step down

## QUICK TURN

8

### WHY

This drill is used to avoid a moving object that crosses your path. This could be an overtaking motorist passing and executing a “right hook” or an oncoming motorist making a “left cross” in front of you.

### EXPLANATION

It is quicker to turn than to stop from speeds of 10 or more mph.

In a routine turn, we usually lean in the direction we wish to turn. To turn more quickly, we force a lean in the proper direction with a countersteer.

By countersteering briefly (turning the handlebar left in this case), a lean to the right is forced. If you quickly turn the handlebar back to the right as soon as the lean is initiated, a much quicker right turn will follow.

### DEMONSTRATION

The instructor should demonstrate the turn twice, once slowly and once at speed. Each of the five points should be mentioned as the drill is demonstrated.

### EVALUATION

No brakes, countersteer, inside pedal up, lean, look up

## AVOIDANCE WEAVE

7

### WHY

We do this exercise to get you thinking about looking up and ahead to see what is coming, to anticipate obstacles and to use control of the bicycle to avoid multiple obstacles in sequence.

### EXPLANATION

You will make at least two passes between the markers and two passes outside the wide side of the markers. The key to successfully performing the second part of this drill is to turn early, shift your weight between the gates and be leaning over the ball as you pass it.

### DEMONSTRATION

The instructor should demonstrate the sequence of passes. Have the students stand near one end of the chute so they can see the sequence and the required maneuvers.

### EVALUATION

Head up, body lean, anticipation

# Parking Lot Skills/ Handling

## SETUP

The Parking Lot Skills/ Handling drills are designed to allow a bicyclist to practice basic bike handling drills in a nonthreatening environment.

The layout is 120 x 20 feet.

It is this size for a reason and you should be hesitant to change it: Most states require turn signals beginning at 100 feet before a turn. This layout allows riders to visualize that distance and practice scanning, signaling and turning in that distance.

The 20 foot width is designed to give bicyclists a chance to practice turning in tight conditions. It makes them comfortable leaning their bike to turn which gives them better control.

## PARKING LOT

Have riders line up two by two straddling their bicycles in the staging area or "Parking Lot."

Instruct them not to go until they are clear what the exercise looks like and you touch their handlebars.

Instruct them that they are to return to the parking lot each time they complete three repetitions of the exercise.

## MOUNTING AND DISMOUNTING

Many riders will be uncomfortable mounting by throwing a leg over the seat. There are numerous other ways to mount and dismount a bicycle, even one with a top bar.

If someone has a problem mounting or dismounting it is always appropriate to suggest a bicycle with a low step-through height. Many cruiser, comfort or town bikes have low or nonexistent top bars.

The easiest way to mount a standard frame bicycle is to reach across and grab the far handlebar, and with the other hand on the seat, lean the bike towards you. You can either step directly over the top bar or swing your leg in an arc behind the seat and then pull the bike up between your legs.

Dismounting involves a similar movement.

