

# **SKILL-BASED ACTIVITY Hazard Avoidance**

**Timeframe** 

Beginner: 10 -15 minutes Intermediate: 10 minutes Advanced: 5-7 minutes

#### **Objectives**

At the conclusion of this activity the student will be able to:

1. Demonstrate exceptional or reliable hazard-avoidance as measured by the hazard-avoidance rubric. (Psychomotor)

2. Demonstrate exceptional or reliable social behavior as measured by the social behavior rubric. (Affective)

#### National Standards Standard 1

Standard 2 Standard 3 Standard 4

#### **Equipment**

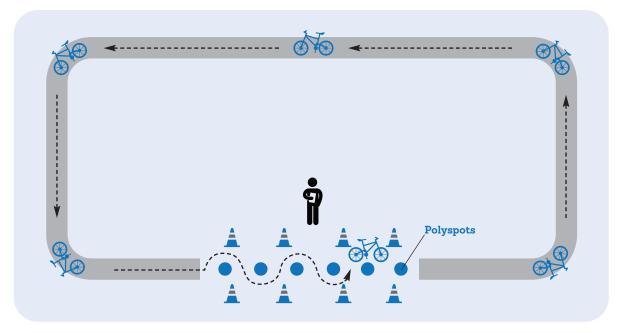
- Helmets
- · Head barriers
- Bicycles
- · Bicycle pump
- · Allen wrench
- · Cones, domes, polyspots or chalk to mark riding course
- · Red floor tape

Teacher Overview This activity teaches and/or strengthens the emergency bicycle handling skill of hazard-avoidance in a limited space. The most important aspect of this skill is to avoid the obstacle with the front tire. If the front tire hits an object, a fall or loss of control of the bicycle is very common. This skill helps students strengthen balance and bicycle handling. This activity can easily be adapted to challenge students with more advanced riding skills by moving the objects closer together.

#### **Preparation**

- 1. Designate a riding course that enables the teacher to see the students at all times. This will enable students to ride throughout the class period, even when they are not performing skills.
- 2. Set up a "chute" using cones, to indicate where the student will perform the skill and the teacher will conduct the assessment. This area should also serve as a teaching station in which the skill will be demonstrated for the students and where students will return when instructed.
- 3. Within the chute, place 8-10 cones, domes or polyspots about one bicycle length apart in a straight line. Refer to Differentiating Instruction for suggestions on set up for varying skill levels.

#### Diagram: Hazard-Avoidance Course



- **4**. If bicycles have both front and rear brakes: Wrap the left handle of the bicycle with red floor tape to discourage students from using the front brake, until proper braking skill is taught.
- **5**. Practice the hazard-avoidance skill before demonstrating to students.

#### **Directions**

- 1. Introduce this activity using the following prompt:
  You can encounter many different types of hazards when you are riding a bicycle such as a rock, a hole, a pile of glass etc. If you were to ride up to one of these hazards you would ride around them. But what if you had very little space in which to ride around the obstacle? Knowing how to avoid a hazard in a limited space is an important emergency bicycle handling skill. The most important aspect of this skill is to avoid the obstacle with the front tire. If the front tire were to hit something, a fall or loss of control of the bicycle is very common. So today, we will be practicing hazard-avoidance.
- **2.** Use the following sample questions to prompt students' thinking about the content in this activity.

#### Q: What types of obstacles do you encounter when you ride your bicycle?

- **A**: Any of the following:
  - · Railroad tracks
  - · Potholes
  - · Storm drains
  - Gravel
  - · Wet leaves
  - Other responses may be accepted

#### Q: What do you do when you come across a rock or a pothole in the road?

**A**: Turn and avoid hitting it with your front wheel

#### Q: What could be dangerous about not avoiding obstacles in the road?

- **A**: Any of the following:
  - · Lose control and fall
  - · Fly over the handlebars
  - · Get a flat tire
  - · Other responses may be accepted

#### Q: What could be dangerous about avoiding obstacles in the road?

**A**: You could veer the bicycle too far and enter another lane where there may be traffic.



- 3. Complete the following steps #4-10 if Helmet Fit and ABC Quick Check have not been completed as part of the current day's lesson; otherwise proceed to step #11.
- 4. Divide students into groups of two or three.
- **5**. Instruct students to fit helmets and have partner(s) check if the helmet is fitted correctly.
- **6**. Instruct students to retrieve bicycles according to number assigned.
- 7. Instruct one student to complete the ABC Quick Check while the other student observes to ensure that the check was completed properly, and to provide prompts if an item was missed.
- 8. Switch roles so the other partner(s) completes the ABC Quick Check.
- **9**. Instruct pairs to proceed to the riding area to meet teacher after students have successfully completed the helmet fit and ABC Quick Check.
- 10. Inspect helmets and instruct students to proceed on the riding course for the 'Check' of the ABC Quick Check and when finished return to the teaching station.
- **11**. Explain and demonstrate the hazard-avoidance skill to students in the teaching station, reinforcing the following points. Riders should:
  - Ride in a straight line until they are very close to the obstacle (rock, hole, etc.).
  - Turn the handlebars quickly just before the bicyclist gets to the obstacle, so the wheel goes around the obstacle.
  - · Steer the bicycle to the other direction quickly.
- **12**. Inform students that the turning of the bicycle should NOT result in a large, sweeping turn; their bodies should not lean; and only the handlebar and front tire should turn.
- 13. Remind students that the entire maneuver takes just a split second.
- **14**. Instruct students to begin riding the designated course with a power start.

- **15**. Instruct students to perform the Rock Dodge in the ready position and at a moderate speed, only upon entering the chute.
- **16**. Provide feedback to students so they can improve their performance.
- 17. Instruct students to repeat activity steps #14 & 15 at a slow speed.
- 18. Instruct students should repeat activity steps #14 & 15 at a fast speed.

Assessment

1. Assess hazard-avoidance of each student using the following rubric.

### PERFORMANCE RUBRIC: HAZARD AVOIDANCE



Exceptional	Reliable	Inconsistent	Struggling/ Survival
Student is able to quickly and safely maneuver the front wheel around the obstacle, by turning handlebars quickly one direction and then the other, without creating a large sweeping turn; Only the front handlebar turns (small arc) and the back tire may go over the obstacle or on the other side (either is appropriate); Student is able to stay seated and maintain balance throughout this maneuver.	Student is able to quickly and safely maneuver the front wheel around the obstacle, by turning handlebars quickly one direction and then the other; Student may create too large of a turn in the process, resulting from overturning; The back tire may go over the obstacle or on the other side (either is appropriate); Student is able to stay seated, but may have some trouble with balance during this maneuver.	Student is able to dodge the obstacle, but does so slowly and/or less safely; There is a large, sweeping turn during the maneuver due to overturning the front wheel; The front and back tire may go over the obstacle; Student has difficulty with balance during this maneuver (may need to put feet down) and may or may not remain seated.	Student is unable to control the bike well enough to perform a Rock Dodge and rides over the obstacle; Student may need more space in order to perform this maneuver, and makes very wide sweeping turns.

2. Assess the performance of social behavior for each student using the following rubric.

### PERFORMANCE RUBRIC: SOCIAL BEHAVIOR 🄕



Exceptional	Reliable	Inconsistent	Struggling/ Survival
Student is respectful toward classmates, teacher, & equipment; Student receives and uses feedback from teacher and peers in a courteous manner; Student participates fully, without teacher prompting or supervision; Student is able to work cooperatively and productively with classmates, including during peer assessments; Student perseveres, even through difficult skills/activities, and maintains a positive attitude; Student is committed to learning; Student is committed to engaging in cycling in a safe manner, and keeping all classmates safe during the cycling unit.	Student is respectful toward classmates, teacher, & equipment; Student receives and uses feedback from teacher and peers in a courteous manner; Student participates fully, but needs some teacher prompting and/or supervision; Participates in most class activities at an appropriate and productive level; Student is most often able to work cooperatively and productively with classmates, including during peer assessments; Student is able to work hard and not get frustrated with setbacks; Student is committed to learning; Student is committed to engaging in cycling in a safe manner, and keeping all classmates safe during the cycling unit.	Student may not always be respectful toward classmates, teacher, & equipment; Student may listen to feedback from teacher or peers, but may not attempt and/or have difficulty applying it; Student requires some teacher supervision, but does exhibit some self-control at times; Student demonstrates the ability to work cooperatively and productively with classmates, but may need teacher direction or supervision; Student participates in most class activities; Student is willing to try, but may get frustrated with setbacks, and pout and/or verbalize frustration; Student may fluctuate between riding safely and unsafely at times.	Student may struggle with being respectful toward classmates, teacher, & equipment and/or show anger and/or blame others for cycling mishaps; Student does not listen to feedback from teacher or peers, and does not attempt to apply it; Student requires ongoing supervision and does not ride safely; Student may be unprepared and show very little interest in learning or the activity; Student becomes frustrated easily and may quit participating.

#### **Safety**



- 1. Follow the 2-2-2-2 Rule (2 wheels on the ground; 2 feet on the pedals; 2 hands on the handlebars; 2 fingers on the brake levers) while riding the bicycle.
- **2.** Use the rear brake only to stop the bicycle, until the skill level advances to be able to safely use the front brake also.
- **3**. Instruct students to ride the bicycles on the designated course and demonstrate the skill components in the "chute."
- Instruct students to keep at least three-bikes-lenghts between each rider

## Differentiating Instruction

#### **Beginner**

 Make the distance between the cones/domes/polyspots stations from one bicycle length to at least two bicycle lengths or more, if necessary.

#### Intermediate

• Decrease the distance between the cones/domes/polyspots stations from one bicycle length to one-half a bicycle length.

#### Advanced

 Increase the difficulty by instructing students to avoid the obstacle with front tire passing on one side of the object and the rear tire passing on the other side.

#### **Best Practices**

 Provide a discreet opportunity and safe environment for students to share information pertaining to their ability and comfort level for riding a bicycle.





- 2. Always complete the Helmet Fit and ABC Quick Check at the beginning of every class in which the students will be riding. The use of peers/partners to practice, inspect, and correct each other will make the most efficient use of class time and reinforce bicycle safety skills. This should not replace teacher assessment.
- 3. Review the three-bicycles-length rule to promote safe riding. The three-bicycles-length rule is a reminder of keeping a safe distance between bicyclists while riding single-file. To help maintain proper spacing, have a marker on the course that allows students to see when it is their turn to go: when the person in front of them gets to the marker, the next student may start riding.