



SKILL-BASED ACTIVITY

Fallen Chain Repair

Timeframe

Beginner: 20-25 minutes

Intermediate: 15 minutes

Advanced: 10 minutes

Objectives

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

1. Demonstrate exceptional or reliable performance of the repair of a fallen chain as measured by the Fallen Chain rubric. (Psychomotor)
2. Demonstrates exceptional or reliable social behavior as measured by the social behavior rubric. (Affective)

National Standards Standard 1
Standard 2
Standard 4

Equipment

- Bicycles
- Screwdriver

Teacher Overview This activity teaches students how to repair a fallen bicycle chain. There are two versions to repairing a bicycle chain.

- Preparation**
1. Using the screwdriver, lift the chain off of the front chainring toward the bicycle frame.
 2. Practice both methods of correcting a fallen bicycle chain.
 3. Set up bicycles with the chains off the front chain rings prior to class.

- Direction**
1. Teacher should have gloves and rags handy.
 2. Introduce this activity using the following prompt:
At some point when you are riding a bicycle the chain might fall off of your bicycle. This most often happens on the front chainrings. Because the chain is the part of the bicycle that provides power, a fallen chain will prevent the bicycle from working. Today, we will be learning two different methods to repair a fallen chain.
 2. Use the following sample questions to prompt student's thinking about the content in this activity.
Q: Have you ever had your chain fall off your bicycle?
A: Responses of yes and no will vary with each class

Q: What did you do?

A: Any of the following are acceptable:

- Used my hands to put the chain back on
- Tried but couldn't put the chain back on
- Had someone else fix the chain
- Other responses may be accepted

3. Instruct students to gather around the demonstration bicycle.
4. Explain and demonstrate the steps to method one to students using a demonstration bicycle with a fallen chain reinforcing the following points. Riders should:
 - Push the bottom portion of the rear derailleur forward to give the chain slack.
 - Put the chain back on whichever gear it has fallen off.
 - Release the bottom portion of the rear derailleur to let chain tighten.
 - Hand pump the pedal to let chain slip into gear while lifting the rear tire off the ground.
5. Instruct students to find their bicycle and put the chain on using method one.
6. Instruct students to gather around the demonstration bicycle.
7. Explain and demonstrate the steps to method two to students using a demonstration bicycle with a fallen chain reinforcing the following points. Riders should:
 - Determine if the chain has fallen off toward the frame or the crank/pedal.
 - Shift to the gear furthest away from the where the chain has fallen. (i.e., if the chain has fallen toward the bicycle frame, shift to the largest chainring).
 - Lift the rear tire off the ground and pedal the bicycle. This will allow the derailleur to do its job by picking up the chain and putting it on the appropriate gear.



Squeeze derailleur to loosen chain

Assessment

1. Assess the performance of repairing the fallen bicycle chain using the following rubric.

PERFORMANCE RUBRIC: REPAIRING A FALLEN BICYCLE CHAIN

Exceptional	Reliable	Inconsistent	Struggling/ Survival
Student can correctly fix a fallen chain using both methods, without assistance from a teacher or aide; As a result, the bike can be ridden safely.	Student can correctly fix a fallen chain using one method, without assistance from a teacher or aide, but requires assistance from a teacher or aide to use the other method; As a result, the bike can be ridden safely.	Student needs help from a teacher or aide to use either method for fixing a fallen chain; Student does understand the process, but is unable to work through it on his own; The bike could not be ridden without help from a teacher/aide.	Student is unable to fix a fallen chain using either method, even with help from a teacher/aide; Student does not seem to understand the process at all.

2. Assess the social behavior of the student during the activity using the following rubric.

PERFORMANCE RUBRIC: SOCIAL BEHAVIOR

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

Safety

Inspect all chains to ensure they are properly adjusted at the end of this lesson before allowing students to ride bicycles.

Differentiating Instruction

Adapted and Beginners

- Use an aide or a peer to help with this activity, as needed.

Best Practice

Teach all bicycle maintenance lessons to intermediate, advanced and beginning riders of a higher cognitive level.