

LESSON 2: SHIFTING AND ATTACKING

Grade-Level Outcomes

Primary Outcomes

Outdoor pursuits: Demonstrates correct technique for basic skills in 1 self-selected outdoor activity. (S1.M22.6)

Individual-performance activities: Demonstrates correct technique for basic skills in 1 self-selected individual-performance activity. (S1.M24.6)

Safety: Uses physical activity and fitness equipment appropriately and safely, *with the teacher's guidance*. (S4.M7.6)

Embedded Outcome

Health: Describes how being physically active leads to a healthy body. (S5.M1.6)

Lesson Objectives

The learner will:

- demonstrate the skills and knowledge to fit a helmet and bike properly.
- demonstrate the ability to use the brakes to stop.
- learn the skills and knowledge in order to shift gears.
- demonstrate the ability to shift gears.
- demonstrate the attack position.

Equipment and Materials

- Mountain bikes
- Helmets
- Cones
- First aid kit
- Air pump
- Mini tool kit for adjusting and repairing bikes on the go

Introduction

Today, we will continue to explore the mountain bike and will practice a variety of important mountain biking skills. We will start by reviewing bike safety. You will have an opportunity to practice an even pedal stroke, turning, and braking. The new skills that you will learn and practice today include shifting gears, shifting your weight, and the attack position.

Instructional Task: Review Equipment

■ PRACTICE TASK

Working in small groups, students fit helmets to their heads and bikes to their bodies. Students check each other for proper fitting.

Extension

Review the following:

- Rolling mount
- Running dismount

Refinement

Make sure students are selecting appropriately sized bikes. Remind them that they should adjust the seat so their toes can touch the ground.

Student Choices/Differentiation

- Students may choose their groups and bikes.
- Provide students with the checklist from the last class if they need a reference.

What to Look For

- Are students checking each other for proper fitting?
- Students find a helmet that fits snugly before adjusting any straps.
- Students adjust straps to keep the helmet in place.
- Students find a bike that fits and adjust the seat so that it comes up to their hips.
- Students are able to reach their toes to the ground while sitting on the bike.

Checklist: Bike and Helmet Fitting

Instructional Task: Review Pedal Stroke, Braking, and Turning

■ PRACTICE TASK

In pairs, students brainstorm everything they remember about riding with an even pedal stroke and with proper braking and turning techniques. Students should document their brainstorming session with pencil and paper.

In pairs, students practice these skills. One student rides as another student observes.

Refinements

- Students should limit their use of the brakes and keep a consistent pedal stroke.
- When taking sharper turns, students should keep the outside foot down and inside foot up, making sure to find balance on the bike as they lean into the turn.

Extensions

- Students practice keeping an even pedal stroke in a heavier gear.
- Students practice track stands.

Guiding questions for students:

- Are you following the safety guidelines while riding?
- Can you brake and stop safely?
- How do you manipulate the bike and your body in order to turn?

Student Choices/Differentiation

- Student will have access to the field for riding. They may choose their own pathways of travel.
- Students choose their own partners.

What to Look For

- Students hand in documentation of their brainstorming session.
- Students are maintaining consistent pedal stroke.
- Students keep inside pedal up (outside pedal down) while turning.
- Students are accepting of partners' ideas during the brainstorming session.

Instructional Task: Shifting Gears

■ PRACTICE TASK

In groups of four, students practice shifting gears. Each student within the group will have a job. A student will

1. hold the back tire up,
2. use the hand to pedal,
3. shift gears, and
4. observe the gears shifting.

Students should rotate jobs until everyone has had a turn at each job.

Extensions

- Students explore shifting gears independently.
- Teach how to replace a broken chain.

Refinements

- Make sure that students can differentiate between shifting up and shifting down.
- Make sure that they know how to shift on the bike they are using.

Student Choices/Differentiation

- Students choose their own groups and the order of job rotation.
- Students choose what gear they start in and what gears they shift to.

What to Look For

- Students understand that the pedals must be in motion when shifting.
- Students stay mindful of the pedal stroke. They should be shifting gears to keep that stroke consistent.
- Students use their conflict-resolution skills if there is conflict with job rotation.
- Students do not cross their chains.

Instructional Task: Riding in the Cockpit

■ PRACTICE TASK

Read commands out for students to follow.

1. *Push your hips toward the handlebars.*
2. *Get your hips behind the seat.*
3. *Pull your torso toward the pedals.*
4. *Get your shoulders as far away from your feet as possible.*

Give students time to discover the cockpit on their own.

Extension

Students partner up and give each other commands.

Refinement

Students explore the cockpit by moving their bodies into different positions on their bikes. Specifically, look for students to move their knees, hips, and torsos in order to experiment how it affects their riding.

Guiding questions for students:

- What happens when you move and shift your body while riding a bike?
- How does moving your hips affect your balance and overall ride? How about bending your knees?
- What happens when you shift all your weight toward the back of the bike?

Student Choices/Differentiation

- Students choose to skip past a command if they don't feel comfortable or safe attempting the skill.
- Students choose the positions in which they ride.
- If needed, repeat the verbal cues.

What to Look For

Students are discovering techniques for maintaining balance and shifting body weight while riding.

Instructional Task: Attack (Ready) Position

■ PRACTICE TASK

Demonstrate the attack position:

- Heavy feet
- Light hands
- Knees bent
- Hips and weight back
- Head up and eyes out

Allow several students to demonstrate for the class.

All students practice riding in a ready position. Allow students to explore and find their own ready positions.

Guiding questions for students:

- When might you use the attack position?
- Do you think the attack position is useful? Why?
- Why is it called the attack position?

Extensions

- Students use the attack position while traveling through an obstacle course.
- Students use iPads to film each other in the attack position.
- Students use the attack position to do a track stand.
- Students use the attack position on a downhill slope.

Refinements

- Check to make sure that students have their heads up and eyes outs, scanning the area in front of them.
- Make sure students' knees are bent.

EMBEDDED OUTCOME: S5.M1.6. Help students make the connection between mountain biking and improving health.

Ask students the following questions:

- How can being physically active lead to a healthy body?
- Can you use mountain biking to improve your body's health? If yes, how?

Student Choices/Differentiation

- Students choose their pathways as they ride around the field.
- Students may choose to work in pairs and observe each other.
- Students may choose to enter the obstacle course.

What to Look For

- Students explore different body positions until they find a comfortable position on the bike that allows them to maintain maximum balance.
 - Students try their best to follow the cues.
-

Formal and Informal Assessments

- Peer assessments:
 - Checklist for components of attack position
 - Bike- and helmet-fitting checklist
- Exit slips:
 - Describe the attack position.
 - Brainstorming lists

Resources

American Alliance for Health, Physical Education, Recreation and Dance. (2014). *Bikeology: A middle and high school bicycle safety curriculum for physical education teachers and recreation specialists*. Reston, VA: Author. Available at www.shapeamerica.org.

Closure

- What is something you learned about mountain bikes today?
- What bike skills did you practice today?
- What does crossing your gears (chain) mean? What should your gears look like while riding?
- Why do you shift gears?
- Can someone explain what they discovered while they explored the cockpit today?
- What does the attack position look like, and why do you use it?

Reflection

- Can students fit a bike and helmet by themselves?
- Are students improving toward proficiency in skills such as turning and braking?
- Do students understand the concept of gears and shifting gears?
- Can students perform the attack position?
- What skills are students starting to combine? Can they shift in the attack position? Can they safely break out of the attack position?
- Can they turn and shift at the same time?

Homework

In your journal, please write a response to the following prompt: How does mountain biking make you feel? Think about how it makes you feel physically, emotionally, socially. The response has no page minimum or maximum, but it should be thoughtful. Consider the following:

- Does your body and brain feel refreshed after biking? Is your body tired and sore after biking?
- Are you nervous about mountain biking? If so, what makes you nervous?

- Do you get excited for biking? If so, how do you think that affects your experience?
- Is mountain biking something you like to do alone? Would you rather ride with friends? What is the best part about riding with other people?
- Is mountain biking an activity you can see yourself doing for a lifetime? Why or why not?

Resources

American Alliance for Health, Physical Education, Recreation and Dance. (2014). *Bikeology: A middle and high school bicycle safety curriculum for physical education teachers and recreation specialists*. Reston, VA: Author. Available at www.shapeamerica.org.

Lopes, B., & McCormack, L. (2010). *Mastering mountain bike skills*. 2nd ed. Champaign, IL: Human Kinetics.

Internet keyword search: “mountain bike skills + tips—10 essential things to know”